UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

IN RE:

COMMODITY EXCHANGE, INC., GOLD FUTURES AND OPTIONS TRADING LITIGATION

This Document Relates To All Actions

Case No. 14-MD-2548 (VEC)
14-MC-2548 (VEC)

CONSOLIDATED AMENDED CLASS ACTION COMPLAINT

JURY TRIAL DEMANDED

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Plaintiffs American Precious Metals, Ltd.; Norman Bailey; Patricia Benvenuto; Michel de Chabert-Ostland; Edward R. Derksen; Frank Flanagan; Quitman D. Fulmer; Thomas Galligher; KPFF Investment, Inc.; Duane Lewis; Larry Dean Lewis; Kevin Maher; Robert Marechal; David Markun; Trieste Matte; Blanche McKennon; Kelly McKennon; Thomas Moran; Eric Nalven; Nando, Inc.; J. Scott Nicholson; Ken Peters; Santiago Gold Fund LP; Albert Semrau; Steven E. Summer; Richard White; White Oak Fund LP; and David Windmiller (collectively, "Plaintiffs"), individually and on behalf of all those similarly situated, as defined below, bring this class action for treble damages and injunctive relief and allege as follows:

NATURE OF THE ACTION

1. Twice daily Defendants met for what is aptly known as the London Gold Market Fixing (hereafter the "London Gold Fixing" or "Fixing"). The Fixing sets a benchmark price for gold. The morning process is known as the "AM Fixing" and the afternoon process is known as the "PM Fixing."[1] The Fixing process was supposed to involve Defendants meeting (later, having a conference call) to conduct an auction for the purchase and sale of gold bars on each London business day. The equilibrium price reached during that auction – *i.e.*, the price where the Defendants' buy orders and sell orders were roughly equal – became the "Fix," the benchmark price adopted at that session of the Fixing.

2. As with numerous other financial benchmarks and commodities markets, however, evidence is mounting that the London Gold Fixing – particularly the PM Fixing – was manipulated by banks more concerned with profit than with market integrity, and more interested in colluding than competing. Rather than engage in the auction at arm's length, Defendants subverted the Fixing on numerous occasions by colluding with each other and engaging in trades

[1] The "PM Fixing" aligns with the opening of the New York gold futures market, and is alleged herein to have been persistently manipulated.

(and sham quotes) before and during the PM Fixing window that caused market prices, and PM Fix prices, to be driven downward consistently throughout the Class Period.

3. Defendants manipulated the PM Fixing because they had the opportunity to do so and it was in their financial interest. Defendants engage in large-scale proprietary trading in the gold futures and over-the-counter gold markets. The outcome of the London Gold Fixing affects trillions of dollars worth of gold. While gold is bought, sold, speculated upon, or otherwise invested in, almost all of these transactions are either tied to or directly affected by the Fix price and what occurs during the Fixing window. With so many gold transactions influenced by the results of the Fixing, the benchmark price can result in millions of dollars of gains or losses for the Defendants. When the benchmark price for gold moves lower, Defendants and their clients pay less for gold purchased from gold miners, dealers, and other clients. When the benchmark price moves higher, Defendants take losses on "short" positions they maintain on the gold futures market.

4. The PM Fixing aligns with the opening of the New York market, and specifically the Commodity Exchange, Inc. ("COMEX") market on which gold futures and other derivative contracts are traded.[2] Defendants maintained large short positions on the COMEX exchange, meaning they (generally) benefit from lower gold prices on that market. The economic and other evidence overwhelmingly shows that Defendants sought to avoid the uncertainties and risks associated with the gold derivatives market – *i.e.*, that the market would move against a Defendant's short position – by agreeing to manipulate the PM Fixing through repeated conduct to artificially suppress the price of gold.

[2] COMEX is owned by CME Group Inc. ("CME"). CME stands for Chicago Mercantile Exchange. CME owns and operates large derivative and futures exchanges in New York and Chicago, as well as online trading platforms. CME's two principal divisions in New York are COMEX and the New York Mercantile Exchange ("NYMEX").

5. The London Gold Fixing was supposed to be the result of an "auction," *i.e.*, it was supposed to be the product of actual trading in the market at arm's length by competitors in the gold market. Clients would funnel orders through Defendants, who are horizontal competitors, and who sat on the panel responsible for setting the Fix. Defendants were then supposed to participate in the auction with other Defendants, based on their overall portfolio of orders. Instead, Defendants colluded to subvert the process, often before it even began.

6. Switzerland's financial regulator, FINMA, recently reported that it has "seen clear attempts to manipulate fixes in the precious metals markets."[3] FINMA unequivocally found that these attempts involved "collusion" among UBS and "other banks,"[4] and that – "just as in foreign exchange trading" – the Fixing banks shared confidential client order information and expected future order information with other banks.[5] FINMA is currently investigating eleven currency and bullion traders at major banks.[6] Other government regulators are investigating this conduct as well.

7. Armed with confidential client information obtained from other Fixing banks, Defendants worked together to impact what occurred both before and during the Fixing window. Once Defendants identified the direction in which they wanted gold prices to move, and

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[3] Nicholas Larkin and Elena Logutenkova, *UBS Precious Metals Misconduct Found by Finma in FX Probe*, Bloomberg (Nov. 12, 2014), *available at* www.bloomberg.com/news/2014-11-12/finma-s-ubs-foreign-exchange-settlement-includes-precious-metals.html.

[4] FINMA, Press release: FINMA sanctions foreign exchange manipulation at UBS (Nov. 12, 2014), *available at* www.finma.ch/e/aktuell/Documents/mm_ubs-devisenhandel_20141112_e.pdf.

[5] FINMA, Foreign exchange trading at UBS AG: investigation conducted by FINMA – Report (Nov. 12, 2014), *available at* www.finma.ch/e/aktuell/Documents/ubs-fx-bericht-20141112-e.pdf.

[6] *See* Suzi Ring, Liam Vaughan and Hugo Miller, *Senior UBS FX, Metals Traders Among 11 Said to Face Swiss Probe*, Bloomberg (Nov. 26, 2014), *available at* www.bloomberg.com/news/2014-11-26/senior-ubs-fx-metals-traders-among-11-said-to-face-swiss-probe.html.

compared each other's order books, they jointly decided how to maximize their benefits from manipulation of the PM Fix. If one Defendant had orders going contrary to the direction desired by the group, these orders could be "netted off" with other Defendants, or third parties, in ways that would not impact the prices (and perceptions thereof) during the Fixing window. On the other hand, if multiple Defendants had orders going in the desired direction, they could "build" orders, or "give ammo," to one bank so as to better control the timing of execution and thus maximize the movement of prices to their mutual benefit.

8. Defendants' large books of gold business and their seats at the London Gold Fixing put them firmly in the driver's seat to impact the Fix price. Defendants used their combined information and orders to engage in a variety of manipulative tactics including "front running" (trading in own positions in advance of customer orders to take advantage of the market's resulting move when the client's orders are placed), "spoofing" (placing large orders that are never executed), "wash sales" (placing large orders that are executed then quickly reversed), and "jamming" (using such techniques to trigger a stop-loss order or to avoid a bank's having to pay on an option or similar contracts).

9. All of these manipulative trading practices were designed to and did regularly drive the price of gold down during the critical period around the time of the PM Fixing. Indeed, Barclays recently *admitted* to engaging in such practices in 2012 in order to move the Fixing price downward to avoid paying its client on a "digital option" contract.

10. Proof of such manipulative behavior is replete in the data surrounding the Fixing. No matter how the data is analyzed, the result is the same: a clear picture that the market movements around the PM Fixing show behavioral patterns far out of line with movements at any other time of day. Specifically, the economic data shows that the price of gold routinely undergoes large downward "spikes" shortly before, during, and after the PM Fixing far more

often, and in much larger amounts, than at any other time of the day.

11. But the effect of manipulation is not restricted to the days on which these large downward "spikes" occurred. Instead, it was systematic and extended throughout the Class Period (as defined below). The PM Fix price was much more frequently among the lowest prices on any given day than among the highest prices for that day.

12. Additionally, from at least 2001 through part of 2013, prices dropped on a statistically anomalous 60% to 80% of the days on which a PM Fixing occurred. Together, these findings mean not only that the PM Fixing was frequently suppressed when compared to same day prices, but also that having a decrease in prices throughout the fixing call was by far the most likely outcome for any day during the Class Period.

13. Defendants manipulated the PM Fixing in order to ensure this would be the case. Specifically, throughout the Class Period the spot prices that Defendants were quoting for gold immediately before, during, and after the PM Fixing were consistently and systematically lower than quoted prices by other market participants. There is no justifiable reason for Defendants' quotes around the PM Fixing to be persistently lower from those of other market participants for over a decade, if not for their collusive behavior to manipulate spot prices downwards on a sustained basis.

14. Nor is there a justifiable reason why Defendants' ask quotes were reduced as the Fixing call starts before ask prices of other market participants react. Defendants knew they wanted to move prices downwards during the PM Fixing, and they were the first to act by promptly lowering their ask prices not only to cause immediate price drops but also to affect other market participants' expectations in the direction of lower prices.

15. Nor is there an innocent explanation for why prices consistently dropped throughout the PM Fixing at the same time that they consistently increased throughout the rest of

the day. We see the same pattern throughout the entire Class Period, and this sustained behavior by Defendants benefited their short positions during the same period of time.

16. This artificial pattern of price behavior around the PM Fixing can only be explained by manipulation. For instance, these spikes cannot be explained as the market's reaction to new information revealed by the Fixing itself. Indeed, the downward trend often began *before* the Fixing call began, and thus *before* there was any new information to digest – except, of course, by Defendants themselves, who through chat rooms, emails, and conference calls had shared information in order to know and control what was going to happen during the Fixing. Defendants also used proprietary trading platforms to coordinate intended prices movements with each other, including through the submission of spoof trades at the low levels to which they wished to move gold prices.

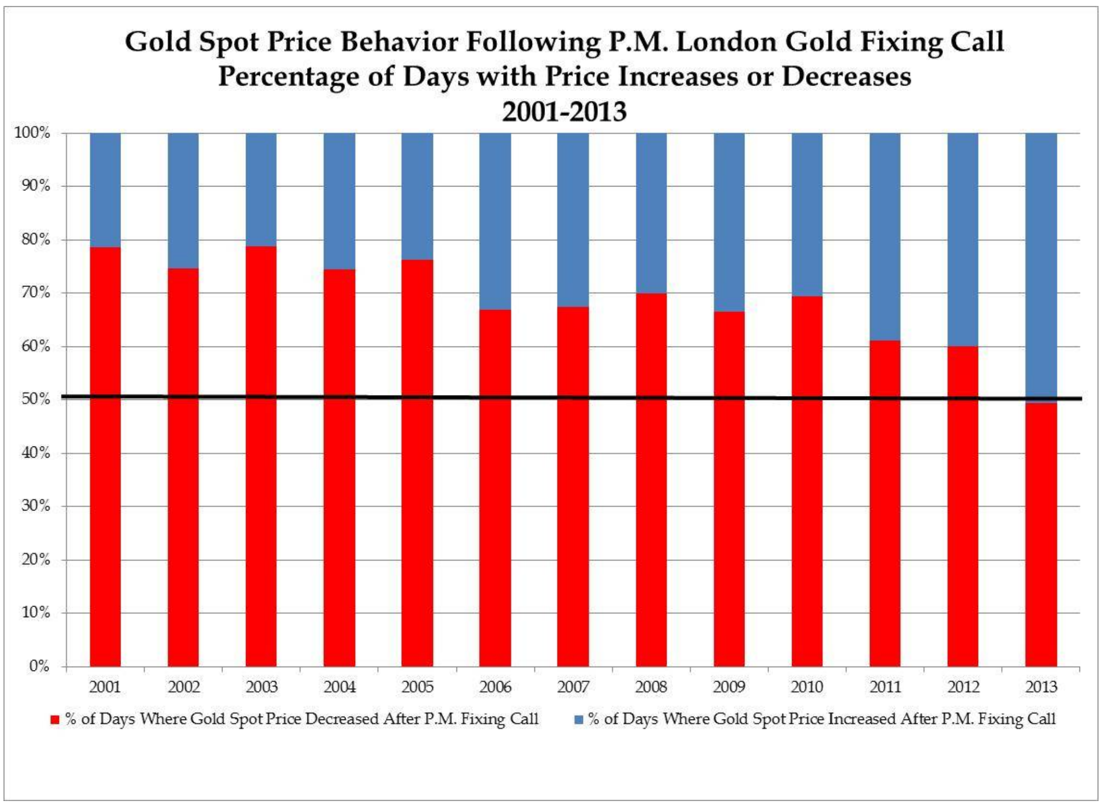
17. Nor can the spikes be attributed to the market's reaction to new information because the spikes are highly disproportionate in the *downward* direction. Over the course of more than a decade, it is highly implausible that the Fix presented so much more unexpected "bad" than "good" news to the market. Nor can these downward spikes be attributable to larger market trends. The downward spikes around the PM Fixing occurred even when the gold market overall went up on the same day.

18. Economic studies tying these anomalies to manipulative behavior have borne statistical fruit. For instance, studies commissioned by Plaintiffs found that a given Defendant's trading during the Fixing correlates far more to that Defendant's own proprietary interest in the direction of that market that day than with market movements generally. While the available information is limited pre-discovery, Plaintiffs' expert consultants have also been able to tie specific, large, below-market quotes, placed around the Fixing window to Defendants.

19. The widespread manipulation of financial benchmarks is now well known. It is

revealing here that the data shows that the presence of an abnormal amount of downward spikes in gold prices changed beginning in the latter half of 2013.

20. The chart below identifies how often the final PM Fix price was below the price for gold just before the Fixing began, versus how often the final PM Fix price was above the price of gold just before the Fixing began. Strikingly, for the first time in over a decade, in 2013 prices were just as likely to go up during the Fixing window as to go down (a phenomenon that began in the latter half of 2013). While from 2001 to 2012, the Fixing price moved lower between 60% to 80% of the time, in 2013 the situation changed and the movements up and down were equal. Other signs of manipulative behavior, as detailed below, similarly show signs of beginning to diminish over the course of 2013, when the investigations began.



21. There have been other changes as well. Defendant Deutsche Bank withdrew from the Fixing process in May 2014 and later announced its intention to sell its precious metals trading business. Guidelines for financial benchmarks designed to improve the integrity and

reliability of the process were published by the International Organization of Securities Commissions last year, and these guidelines have led to an overhaul of how the Fixing will be conducted in the future.

22. Just last month, as a result of the London Bullion Market Association's ("LBMA") review of the Fixing, ICE Benchmark Administration ("IBA") was selected as a third-party administrator for the Fixing.[7] IBA "will provide the price platform, methodology as well as the overall administration and governance" for the Fixing.

23. Some of Defendants' gold traders have lost their jobs or been placed on indefinite leave. And investigations by various government regulators are ongoing. But none of these changes have compensated the investors in gold, and investments and securities whose value is based on gold (together, "Gold Investments"[8]), like Plaintiffs, who were injured in their business and property by Defendants' collusive and manipulative conduct. Plaintiffs seek redress in this action on their own behalf and on behalf of the Proposed Class.

JURISDICTION AND VENUE

24. This Court has subject matter jurisdiction over this action pursuant to Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15(a) and 26), Section 22 of the Commodity Exchange Act (7 U.S.C. § 25), and pursuant to 28 U.S.C. §§ 1331 and 1337(a).

25. Venue is proper in this District pursuant to 15 U.S.C. §§ 15(a), 22 and 28 U.S.C. § 1391(b), (c), (d) because during the Class Period all Defendants resided, transacted business, were found, or had agents in this District; a substantial part of the events or omissions giving rise

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[7] Appointment of IBA as Third Party Administrator for LBMA Gold Price (Nov. 7, 2014), *available at* www.lbma.org.uk/_blog/lbma_media_centre/post/appointment-of-iba-as-third-party-administrator-for-lbma-gold-price.

[8] "Gold Investments" refers to physical gold, gold futures on COMEX and forwards, shares of Gold ETFs, and all options on gold prices or gold bullion, including options on COMEX.

to these claims occurred in this District; and a substantial portion of the affected interstate trade and commerce discussed herein has been carried out in this District.

26. The COMEX, where much of the affected trading takes place and whose prices were manipulated, is located in the Southern District of New York. Approved gold warehouses, including at least two affiliated with or owned by a Defendant, are located in this District and the adjacent Eastern District of New York.

27. This Court has personal jurisdiction over each Defendant, because each Defendant: transacted business throughout the United States, including in this District; had substantial contacts with the United States, including in this District; and/or committed overt acts in furtherance of their illegal scheme and conspiracy in the United States. In addition, the conspiracy was directed at, and had the intended effect of, causing injury to persons residing in, located in, or doing business throughout the United States, including in this District.

28. The activities of Defendants and their co-conspirators were within the flow of, were intended to, and did have a substantial effect on the foreign and interstate commerce of the United States.

THE PARTIES

A. Plaintiffs

29. Plaintiff American Precious Metals, Ltd. ("American Precious Metals") is a Pennsylvania limited company with its principal place of business in Media, Pennsylvania. During the Class Period, American Precious Metals sold physical gold at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, American Precious Metals sold physical gold on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. American Precious Metals was deprived of transacting in a lawful, non-

manipulated, competitive market for Gold Investments, including the segment for physical gold, and otherwise suffered injury to its business or property as a direct and proximate result of Defendants' unlawful conduct.

30. Plaintiff Norman Bailey is an individual residing in Ontario, Canada. During the Class Period, Mr. Bailey sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Bailey sold COMEX gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Bailey was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

31. Plaintiff Patricia Benvenuto is an individual residing in Phoenixville, Pennsylvania. During the Class Period, Ms. Benvenuto sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Ms. Benvenuto sold COMEX gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Ms. Benvenuto was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to her business or property as a direct and proximate result of Defendants' unlawful conduct.

32. Plaintiff Michel de Chabert-Ostland is an individual residing in West Palm Beach, Florida. During the Class Period, Mr. de Chabert-Ostland sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. de Chabert-Ostland sold gold futures contracts on many of the

specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. de Chabert-Ostland was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

33. Plaintiff Edward R. Derksen is an individual residing in Sisters, Oregon. During the Class Period, Mr. Derksen sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Derksen sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Derksen was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

34. Plaintiff Frank Flanagan is an individual residing in Swansea, United Kingdom. During the Class Period, Mr. Flanagan sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Flanagan sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Flanagan was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

35. Plaintiff Quitman D. Fulmer is an individual residing in Charleston, South Carolina. During the Class Period, Mr. Fulmer sold gold ETFs at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B,

Mr. Fulmer sold gold ETFs on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Fulmer was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for shares of gold ETFs, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

36. Plaintiff Thomas Galligher is an individual residing in Phoenixville, Pennsylvania. During the Class Period, Mr. Galligher sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Galligher sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Galligher was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

37. KPFF Investment, Inc. f/k/a KP Investments, Inc. ("KPFF") is a corporation with its principal place of business in Irvine, California. During the Class Period, KPFF sold physical gold at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, KPFF sold physical gold on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. KPFF was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for physical gold, and otherwise suffered injury to its business or property as a direct and proximate result of Defendants' unlawful conduct.

38. Plaintiff Duane Lewis is an individual residing in Effingham, Illinois. During the

Class Period, Mr. Duane Lewis sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Duane Lewis sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Duane Lewis was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

39. Plaintiff Larry Dean Lewis is an individual residing in Robinson, Illinois. During the Class Period, Mr. Larry Lewis sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Larry Lewis sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Larry Lewis was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

40. Plaintiff Kevin Maher is an individual residing in Cambridge, New York. During the Class Period, Mr. Maher sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Maher sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Maher was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to

his business or property as a direct and proximate result of Defendants' unlawful conduct.

41. Plaintiff Robert Marechal is an individual residing in Readsboro, Vermont. During the Class Period, Mr. Marechal sold gold ETFs and physical gold at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Marechal sold gold ETFs and physical gold on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Marechal was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segments for gold ETFs and physical gold, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

42. Plaintiff David Markun is an individual residing in Topanga, California. During the Class Period, Mr. Markun sold physical gold at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Markun sold physical gold on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Markun was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for physical gold, and otherwise suffered injury to her business or property as a direct and proximate result of Defendants' unlawful conduct.

43. Plaintiff Trieste Matte is an individual residing in Flower Mound, Texas. During the Class Period, Ms. Matte sold physical gold at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Ms. Matte sold physical gold on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Ms. Matte was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in

the segment for physical gold, and otherwise suffered injury to her business or property as a direct and proximate result of Defendants' unlawful conduct.

44. Plaintiff Blanche McKennon is an individual residing in Pullman, Washington. During the Class Period, Ms. McKennon sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Ms. McKennon sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Ms. McKennon was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to her business or property as a direct and proximate result of Defendants' unlawful conduct.

45. Plaintiff Kelly McKennon is an individual residing in Pullman, Washington. During the Class Period, Mr. McKennon sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. McKennon sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. McKennon was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

46. Plaintiff Thomas Moran is an individual residing in Atlanta, Georgia. During the Class Period, Mr. Moran sold COMEX gold futures contracts and gold ETFs at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Moran sold gold futures contracts and gold ETFs on many of the specific days

on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Moran was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

47. Plaintiff Eric Nalven is an individual residing in Delray Beach, Florida. During the Class Period, Mr. Nalven sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Nalven sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Nalven was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

48. Plaintiff Nando, Inc. ("Nando") is a corporation with its principal place of business in Roberts, Wisconsin. During the Class Period, Nando sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Nando sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Nando was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to its business or property as a direct and proximate result of Defendants' unlawful conduct.

49. Plaintiff J. Scott Nicholson is an individual residing in Bellevue, Washington. During the Class Period, Mr. Nicholson sold COMEX gold futures contracts at artificial prices

proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Nicholson sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Nicholson was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

50. Plaintiff Ken Peters is an individual residing in Irvine, California. During the Class Period, Mr. Peters sold physical gold at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Peters sold physical gold on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Peters was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for physical gold, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

51. Plaintiff Santiago Gold Fund LP ("Santiago Gold Fund") is a Delaware limited partnership with its principal place of business in San Francisco, California. During the Class Period, Santiago Gold Fund sold gold ETFs and options on gold ETFs at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Santiago Gold Fund sold gold ETFs and options on gold ETFs on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Santiago Gold Fund was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for physical gold, and otherwise suffered injury to its business or property as a direct and proximate result of

Defendants' unlawful conduct.

52. Plaintiff Albert Semrau is an individual residing in Strasburg, Virginia. During the Class Period, Mr. Semrau sold physical gold at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Semrau sold physical gold on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Semrau was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for physical gold, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

53. Plaintiff Steven Summer is an individual residing in Plandome, New York. During the Class Period, Mr. Summer sold gold ETFs at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Summer sold gold ETFs on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Summer was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for shares of gold ETFs, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

54. Plaintiff Richard White is an individual residing in Satellite Beach, Florida. During the Class Period, Mr. White sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. White sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. White was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to

his business or property as a direct and proximate result of Defendants' unlawful conduct.

55. Plaintiff White Oak Fund LP ("White Oak") is a private placement fund headquartered in Burr Ridge, IL. During the Class Period, White Oak sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, White Oak sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. White Oak was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to its business or property as a direct and proximate result of Defendants' unlawful conduct.

56. Plaintiff David Windmiller is an individual residing in Melville, New York. During the Class Period, Mr. Windmiller sold COMEX gold futures contracts at artificial prices proximately caused by Defendants' unlawful manipulation as alleged herein. As reflected in Appendix B, Mr. Windmiller sold gold futures contracts on many of the specific days on which Plaintiffs' economists have demonstrated manipulation of the market for Gold Investments. Mr. Windmiller was deprived of transacting in a lawful, non-manipulated, competitive market for Gold Investments, including in the segment for gold futures contracts, and otherwise suffered injury to his business or property as a direct and proximate result of Defendants' unlawful conduct.

B. Defendants

57. Whenever in this Complaint reference is made to any act, deed, or transaction of any entity, the allegation means that the corporation engaged in the act, deed, or transaction by or through its officers, directors, agents, employees, or representatives while they were actively engaged in the management, direction, control, or transaction of the entity's business or affairs.

58. Defendant **The Bank of Nova Scotia** is a corporation organized and existing under the laws of Canada with its principal place of business in Toronto, Canada and an agency in New York, New York. As used herein, the term "**BNS**" includes The Bank of Nova Scotia and its subsidiaries and affiliates including ScotiaMocatta, the precious and base metals division of BNS. BNS is regulated by the Commodity Futures Trading Commission ("CFTC"). BNS operates the ScotiaMocatta Depository, a depository licensed by the CFTC and located in Queens, New York City. The ScotiaMocatta Depository is approved for the storage of gold against COMEX gold futures contracts.

59. ScotiaMocatta executes client trades in the physical gold market, in gold derivatives, and in shares of gold ETFs (as defined below). BNS operates a system called Scotia iTRADE for commodities trading. BNS clients can trade gold derivatives and purchase gold certificates and gold bars on the iTRADE system. BNS also conducts proprietary trading in the gold market. During the Class Period, BNS was a member and owner of the London Gold Market Fixing Ltd., and entered directly into gold spot, forward, option and Gold ETF share transactions with members of the Class.

60. Defendant **Barclays Bank plc** is a corporation organized and existing under the laws of the United Kingdom with its principal place of business in London, England and branches and offices in New York, New York. As used herein, the term "**Barclays**" includes Barclays Bank plc and its subsidiaries and affiliates, including its subsidiary Barclays Capital Inc., which is a futures commission merchant registered with the CFTC.

61. Barclays executes client trades in the physical gold market, on COMEX, in gold derivatives, and in shares of gold ETFs, and also operates a system called BARX for commodities trading. Barclays clients can make orders at the London Gold Fixing price or trade gold derivatives on the BARX system. Up until 2012, Barclays also conducted proprietary

trading in the gold market. During the Class Period, Barclays was a member and owner of the London Gold Market Fixing Ltd., and entered directly into gold spot, forward, option and Gold ETF share transactions with members of the Class.

62. Defendant **Deutsche Bank AG** is a corporation organized and existing under the laws of Germany with its principal place of business in Frankfurt, Germany and branches and offices in New York, New York. As used herein, the term "**Deutsche Bank**" includes Deutsche Bank AG and its subsidiaries and affiliates, including its subsidiary Deutsche Bank Securities Inc., which is a futures commission merchant registered with the CFTC.

63. Deutsche Bank executes client trades in the physical gold market, on COMEX, in gold derivatives, and in shares of Gold ETFs. Deutsche Bank also conducts proprietary trading in the gold market, and provides an electronic platform named "Autobahn" for trading gold products. During the Class Period, Deutsche Bank was a member and owner of the London Gold Market Fixing Ltd., and entered directly into gold spot, forward, option and gold ETF share transactions with members of the Class.

64. Defendant **HSBC Bank plc** is a company organized and existing under the laws of the United Kingdom with its principal place of business in London, England and subsidiaries in the United States. As used herein, the term "**HSBC**" includes HSBC Bank plc and its subsidiaries and affiliates, including its subsidiary HSBC Securities (USA) Inc., a futures commission merchant registered with the CFTC, and HSBC Bank USA, which is the principal US bank subsidiary of HSBC Bank plc. HSBC Bank USA operates a depository that is licensed by the CFTC and is located in Manhattan, New York City. That depository is approved for the storage of gold against COMEX gold futures contracts.

65. HSBC executes client trades in the physical gold market, on COMEX, in gold derivatives, and in shares of gold ETFs. While HSBC does not have a formal proprietary gold

trading business, it does take positions on the gold derivatives market. During the Class Period, HSBC was a member and owner of the London Gold Market Fixing Ltd., and entered directly into gold spot, forward, option and gold ETF share transactions with members of the Class.

66. Defendant **Société Générale SA** is a corporation organized and existing under the laws of France with its principal place of business in Paris, France and branches and offices in New York, New York. As used herein, the term "**Société Générale**" includes Société Générale SA and its subsidiaries and affiliates including its subsidiary, Newedge USA, LLC, which is a futures commission merchant registered with the CFTC.

67. Société Générale executes client trades in the physical gold market, on COMEX, in gold derivatives, and in share of gold ETFs. Société Générale operates the Alpha Precious Metals electronic platform for trading gold products. Société Générale also conducts proprietary trading in the gold market. At least some of Société Générale's proprietary trading in commodities is managed from Société Générale's New York office. During the Class Period, Société Générale was a member and owner of the London Gold Market Fixing Ltd., and is its current chair. During the Class Period, Société Générale entered directly into gold spot, forward, option, and gold ETF share transactions with members of the Class.

68. Defendant The London Gold Market Fixing Limited ("LGMF") is a private company organized and existing under the laws of the United Kingdom and with its principal place of business at New Court, St. Swithin's Lane, London EC4P 4DU, England. LGMF is owned and controlled by Barclays, Deutsche Bank, HSBC, BNS, and Société Générale and these five banks are also the only members of LGMF.

69. Various other entities and individuals unknown to Plaintiffs at this time – including other major bullion banks – participated as co-conspirators in the acts complained of, and performed acts and made statements that aided and abetted and were in furtherance of the

unlawful conduct alleged herein.

FACTUAL ALLEGATIONS

I. BACKGROUND ON THE GOLD MARKET

A. The London Gold Fixing

70. The Fixing was originally established to determine a daily benchmark price for one troy ounce of gold at predetermined times during the London trading day. In the physical gold market there is no central price at any given time. Instead, all of the gold market-making banks – including Defendants – and dealers provide competing bid and ask quotes directly to their clients and customers. As such, the Fix price was supposed to provide buyers and sellers an objective benchmark that isolated both parties from the noise of the trading day, or the bias of any one market maker.

71. The benchmark price issued by the Fixing fixes the price of "Good Delivery" gold. Good Delivery gold bars are the type normally traded in the financial markets, held to back futures contracts and other gold derivatives, held in private vaults, and held in the vaults of sovereign nations, central banks, and the International Monetary Fund. The benchmark price for "Good Delivery" gold issued by the Fixing is used by gold producers (miners, refiners), gold consumers (jewelers, industrials), investors, futures and options traders, central banks, and others to buy, sell, and value gold, and is accordingly the dominant price benchmark for the world's gold trading.

72. The London Gold Fixing began in 1919 after the Bank of England negotiated an agreement with seven South African mining houses to ship their gold to London for refining. These mining houses agreed to sell all of their gold through London-based N.M. Rothschild & Sons at prices agreed to by the largest London gold bullion traders and refiners of the time. N.M. Rothschild, the last remaining original member, sold its seat to Barclays in 2004.

73. The contemporary London Gold Fixing occurs twice each business day at 10:30 a.m. and 3:00 p.m. London time. The Fixing was administered by LGMF, the members of which are the Defendants here, with the exception of Defendant Deutsche Bank, which was a member until resigning its seat in May 2014.

74. The Fixing long took place in a wood-paneled room at Rothschild's offices in St. Swithin's Lane until the process was switched to a telephone conference call in 2004. Prior to the beginning of the Fixing, market participants funnel their orders through the Defendants (who consolidate their respective client orders with orders from their own proprietary trading desks) to determine whether each Defendant would be a buyer or seller at a given spot price. Leading up to the Fix each Defendants' trading room is in constant communication with select clients who are interested in dealing in gold if the price is right.

75. The Fixing then purports to proceed through what is known as a "Walrasian" auction: as has occurred since the Fixing began in the early 20th Century, the designated chair (a position that rotates annually among the Defendants) provides a figure that is supposed to be the then-prevailing United States Dollar spot price for gold.

76. Once the chair announces the opening price, the other members declare how many bars of gold they wish to buy or sell at that price supposedly based on the orders of their clients and their own proprietary positions. Fixing members declare their interest in increments of five gold bars. If there is no buying or selling interest, the chair may announce the initial price as "fixed," concluding the call. If, however, the opening price elicits a disproportionate amount of selling or buying interest, the chair adjusts the price until the offers to buy and sell are closer. Generally, when the offers are within 50 bars of each other, the chair will declare the price to be "fixed." The call then concludes and the price is transmitted to the LBMA for publication.

77. On November 7, 2014, as a result of the LBMA's review of the Fix following the

revelation it had been manipulated, IBA was selected as a third-party administrator for the Fixing. Under the new administration, IBA "will provide the price platform, methodology as well as the overall administration and governance" for the Fixing.

B. The Gold Fixing Directly Impacts Prices for Multiple Gold Investments

1. Physical and derivatives gold investments

78. Like most commodities, the price of gold is driven – or at least is supposed to be driven – by supply and demand. The Fixing is held out as a procedure to find the equilibrium price, at which the demand for gold equals the supply for gold, through an auction by the member banks.

79. Some of the international demand for gold is met through spot contracts on the over-the-counter segment of the market for Gold Investments. A spot contract is a contract where a buyer and seller agree to settlement (payment and delivery) on a spot date, which is normally two business days after the trade date. The settlement price is called the spot price. Sales at "spot" are often tied or keyed to the London PM Fix on the day of the sale. There is also a large market consisting of gold derivatives, which are financial instruments whose value depends on the underlying price of physical gold on the spot market.

80. Gold derivatives include gold futures and options contracts. A gold futures (or forward) contract is a bilateral agreement for the purchase or sale of an agreed amount of gold at a specified date in the future. That type of contract can be traded over-the-counter (a forward) or on an exchange (a future). In the United States, most exchange-traded gold futures and options are traded on COMEX, which has been designated by the CFTC as a contract market pursuant to Section 5 of the Commodity Exchange Act (7 U.S.C. § 7). COMEX specifies the terms of trading, including trading units, price quotation, trading hours, trading months, minimum and maximum price fluctuations, and margin requirements.

81. For each gold futures contract, the buyer takes a "long" position on gold, meaning it agrees to pay for a specified amount of gold and take delivery at the expiry of the contract. The seller takes a "short" position, meaning it will receive payment for the gold and make delivery. Only a small percentage of all futures contracts traded each year on COMEX and other exchanges result in actual delivery of the underlying commodities. Instead of taking physical delivery of gold, traders generally offset their futures position before their contracts mature. For example, a purchaser of a gold futures contract can cancel or offset its future obligation to the contract market or exchange clearinghouse to take delivery of gold by selling an offsetting futures contract. The difference between the initial purchase or sale price and the price of the offsetting transaction represents the realized profit or loss.

82. Gold option contracts can be traded over-the-counter or on an exchange. A call gives the holder of the gold option the right, but not the obligation, to buy the underlying gold futures contract, or the underlying gold itself, at a certain price – the "strike" price – up until a fixed point in the future (*i.e.*, the option's expiry). A put gives the holder the right, but not the obligation, to sell the underlying gold futures contract, or the underlying gold itself, at the strike price until the option's expiry. An investor that buys a put option generally expects the price of gold to fall (or at least seeks to protect against downside risk), and an investor that buys a call option generally expects the price of gold to rise. The price at which an option is bought or sold is called the "premium."

83. Through these various contracts and trades, there are many ways to "go short" (*i.e.*, profit from gold price decreases) or "go long" (*i.e.*, profit from gold price increases). The entity that is short benefits as prices fall. The seller of a futures contract, for instance, can then offset the position by purchasing another futures contract, pocketing the difference in price. The seller of a call option benefits if the spot price falls below the strike price, since the seller collects

the option premium and pays nothing to the purchaser. At expiry, if the price of gold exceeds a call option's strike price, the rational holder will exercise the call option, which means the seller of the call option, if unhedged, will have to sell the futures contract at the strike price and cover its position, paying the difference between the prevailing price and the strike price.

2. Gold exchange-traded funds

84. Exchange-traded funds ("ETFs") issue securities that track an industry index (*e.g.*, the S&P 500), a commodity (*e.g.*, gold or silver), or a basket of assets in the same way as an index fund, but which are shares that trade on an exchange. Securities issued by ETFs experience price changes throughout the day reflecting supply and demand as they are bought and sold, where that supply and demand is heavily influenced by supply and demand within the industry, or for the commodity or assets, that the ETF tracks.

85. There are ETFs that invest only in gold bullion and whose shares are linked directly to gold bullion prices ("Gold ETFs").[9] The largest Gold ETF is the SPDR Gold Trust, which issues SPDR Gold Shares (trading symbol "GLD"). The goal of the SPDR Gold Trust is for the SPDR Gold Shares to reflect the performance of the price of gold bullion, less the expenses of the Trust's operations. A Prospectus for the SPDR Gold Trust states that the SPDR Gold Shares "are designed for investors who want a cost-effective and convenient way to invest in gold."[10] The price of shares issued by a Gold ETF correlates very closely to the spot price of gold itself.

3. The Fix impacts the prices of both physical and derivative gold investments and the share prices of Gold ETFs

86. Defendants seized upon the PM Fixing as a means to manipulate the market for

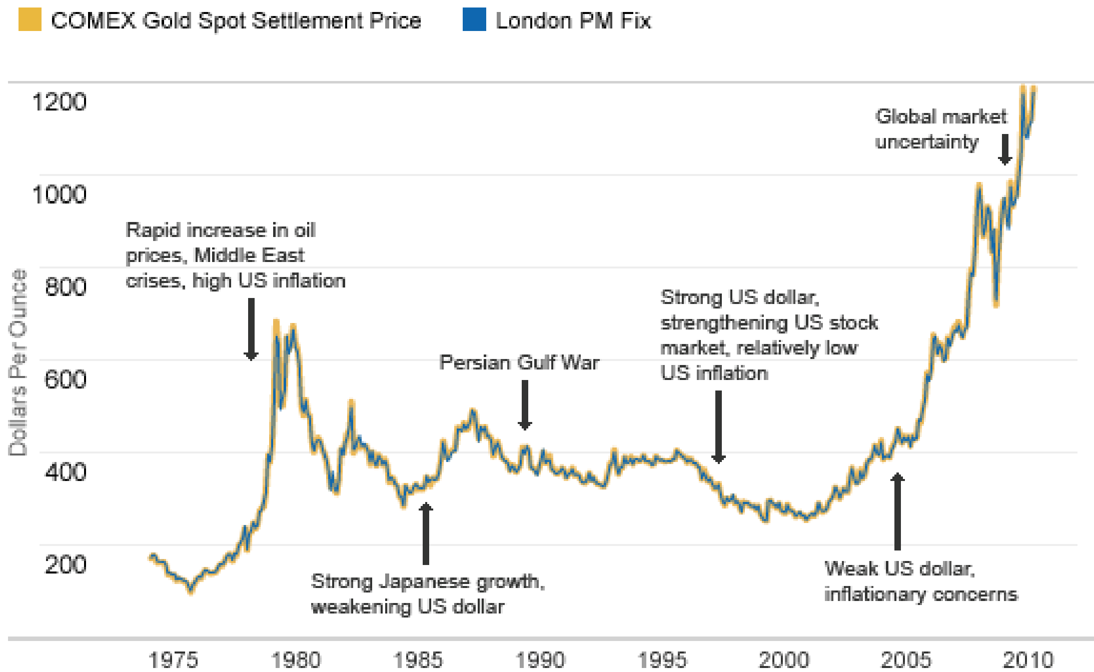
[9] *See, e.g.*, SPDR Gold Trust Prospectus (April 26, 2012), at 2: "The investment objective of the Trust is for the Shares to reflect the performance of the price of gold bullion, less the expenses of the Trust's operations."

[10] *Id.*

Gold Investments because of its widespread impact on the price of Gold Investments. The London PM Fixing occurs shortly after trading begins on the COMEX in New York. Indeed, in a recent market survey, the LBMA reported that 83% of respondents based at least some of their trading on the Fixing, with nearly 70% of respondents basing some of their trading on the Fixing price *every day*.[11] Almost half of respondents base more than a fifth of their trading on the Fixing price, with more than a quarter of respondents basing more than 70% of their trading on the Fixing price.

87. Many physical supply contracts – such as contracts for the sale of raw gold by miners – explicitly incorporate the Fix. The Fix also impacts the price of gold futures and options on these futures contracts, such as those traded on the CME Group's COMEX. This is because COMEX prices closely track the price of spot gold. Changes in the price in one will be almost immediately reflected in the other. In fact, the correlation between spot and futures prices from 2001 – 2013 is 99.9%, meaning that these two prices are virtually tied to each other. This tight correlation holds true no matter what is happening in the market for Gold Investments, as seen in the following chart.

[11] London Bullion Market Association, *London Gold Price: Market Consultation – First Survey Results* (Oct. 10, 2014), at 8; *see also id.* at 4 (providing chart).



88. To confirm the correlation, economists retained by Plaintiffs also analyzed high-frequency spot, futures, and ETF price data, concluding that gold futures contracts "are significantly impacted by the London PM gold price fixing process."[12] The following chart depicts the daily normalized average intraday gold spot prices (in blue) and COMEX futures prices (in red), and illustrates how closely the spot and COMEX prices were correlated from 2001 through 2013. For present purposes, the chart is presented to confirm that the two move in tandem. But it is also worth noting that, like many other studies performed in connection with this complaint, the data here shows a large anomalous downwards spike around the time of the PM Fixing – not just in spot prices, but in COMEX prices as well.

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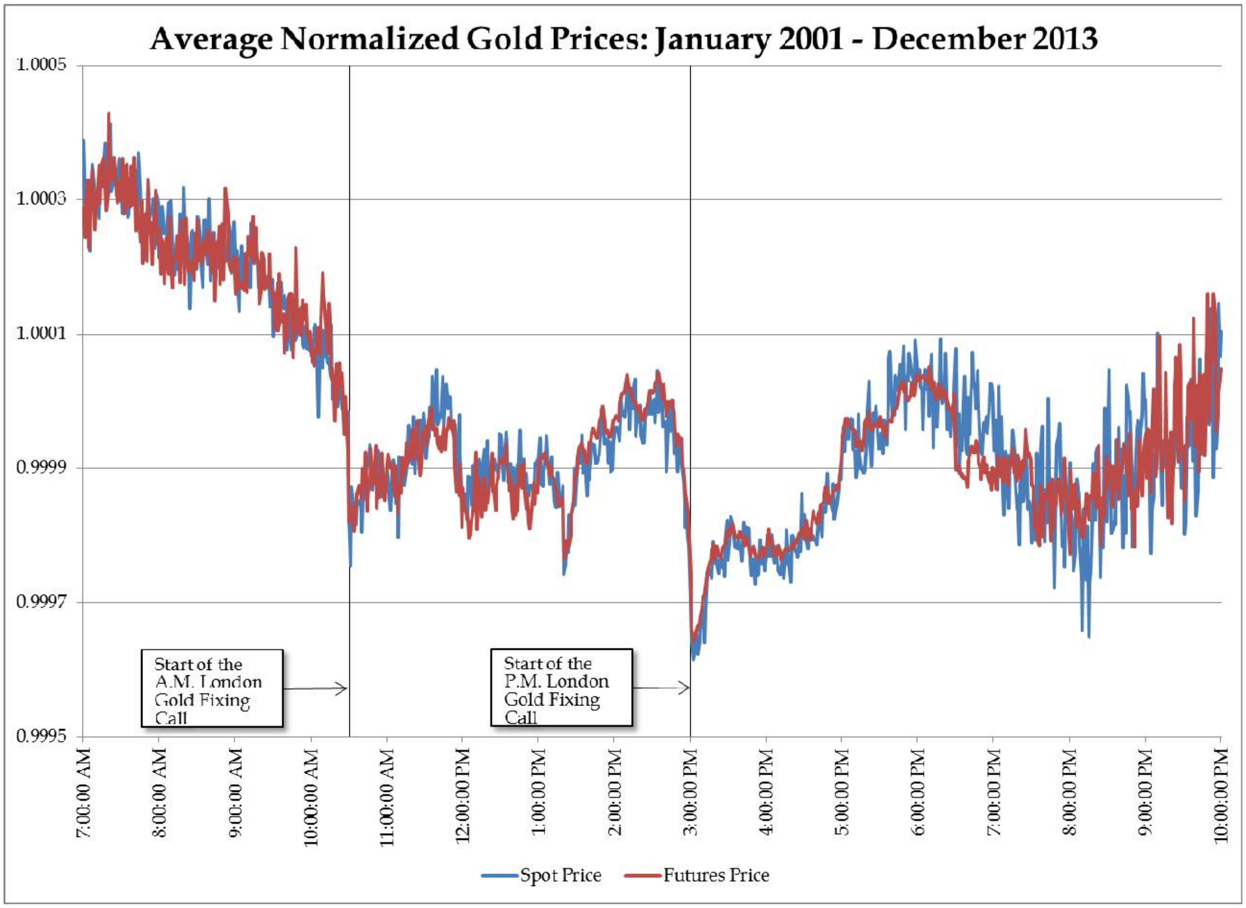
[12] Andrew Caminschi and Richard Heaney, *Fixing a Leaky Fixing: Short-Term Market Reactions to the London PM Gold Price Fixing*, JOURNAL OF FUTURES MARKETS 1, 35 (Sept. 2013).



89. The next chart confirms that prices of gold ETF shares, too, move in unison with movements in the Fix. The chart tracks the daily PM Fix (in yellow) and the daily price of SPDR Gold Shares (a gold ETF, in blue).[13] Once again, the two lines are virtually indistinguishable.[14]

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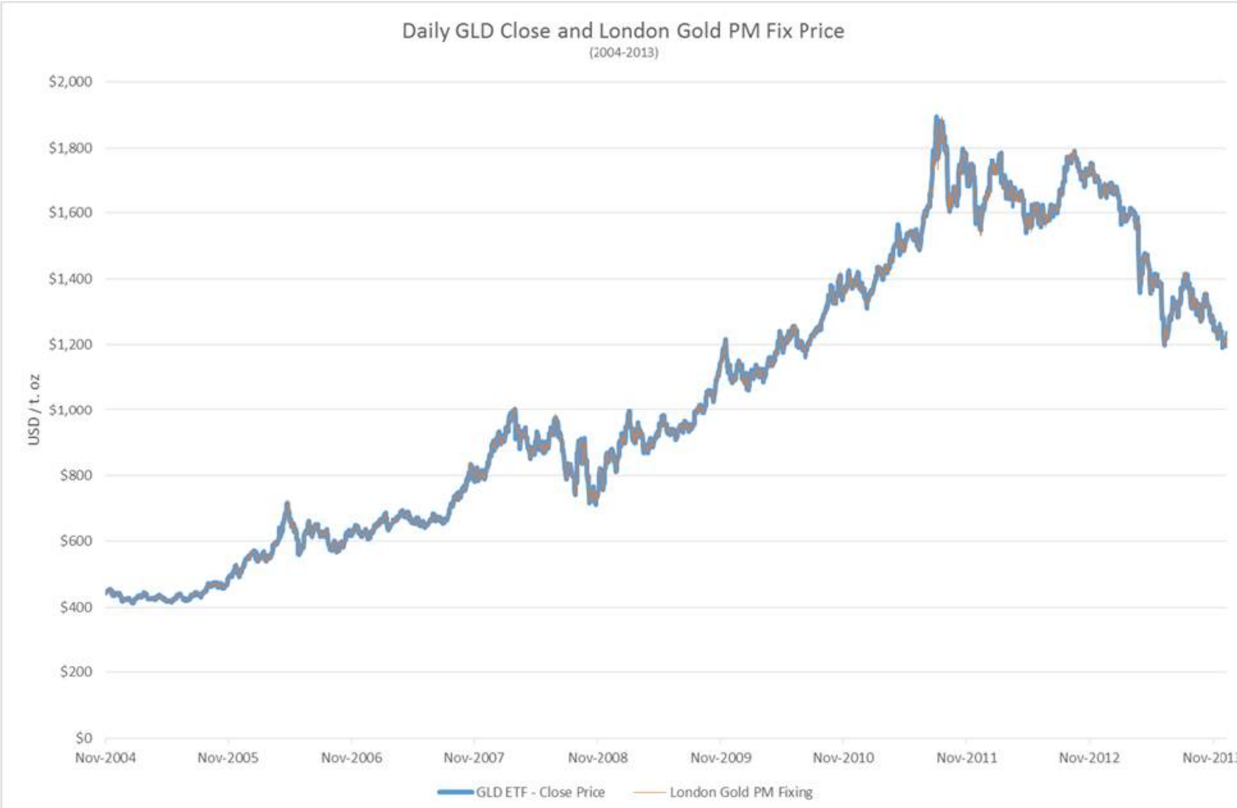
[13] When GLD was first issued, each share represented a 1/10 oz holding of gold. This has, over time, adjusted to be less than 1/10 oz to accommodate fees associated with the administration and marketing of the SPDR Gold Trust. The chart below starts with prices in November 2004 because that is when SPDR Gold shares were first issued.

[14] The "spike" mentioned above does not appear in the chart below, which tracks prices on a *daily* basis – the chart above tracked *intraday* prices.

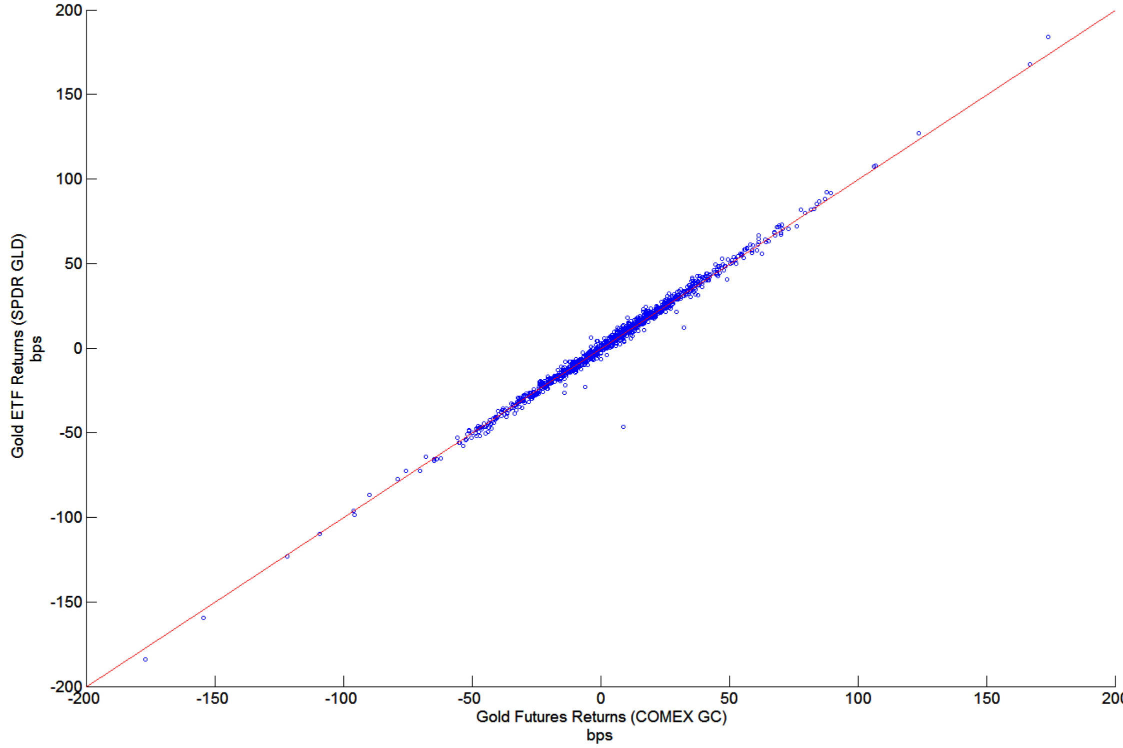


90. Another way to see the tight correlation is to plot the SPDR GLD share prices on the y-axis and COMEX prices on the x-axis, placing a dot for each particular point in time.

91. On the chart below, the red line represents a theoretical line of perfect correlation, *i.e.*, as the price of one moved, the other moved in the exact same relative amount at the exact same time. The blue dots represent actual pricing data. The tight clustering of the actual pricing data around the red line again confirms that, as COMEX prices move at the time of the PM Fixing, so too do Gold ETF share prices.

92. Statistically speaking, the correlation coefficient is a near-perfect 99.6%. As discussed above, COMEX prices and SPDR Gold Trust share prices are both tightly correlated with the PM Fix such that prices of each move together, with the PM Fix driving the other two.

Correlation between COMEX Futures returns and the returns on SPDR Gold Shares at the time of the London PM Fixing



93. These relationships make sense: the COMEX gold futures price is the market's consensus of the expected spot price for the underlying gold at a specified future date. Because the futures price is essentially an expectation of what the spot price will be for the underlying futures contact at maturity, gold futures and physical prices are very closely correlated. In the same way, prices of Gold ETF shares are closely correlated with spot gold prices because those share prices are based almost entirely on spot gold prices.

94. As expanded upon below, Defendants frequently manipulated the PM Fixing so that the Fix set at lower levels than competitive market forces would have dictated. This not only caused artificially low prices in the spot market, but also – because of the relationships discussed above – artificially lowered prices on COMEX for both futures and options, for securities of Gold ETFs, and for other Gold Investments. Thus, Defendants' suppression of the gold benchmark directly affected the price of physical gold, gold futures, and Gold ETF shares,

and other Gold Investments, causing the Class to sell these investments at artificially low prices.[15]

95. Indeed, as indicated above, Plaintiffs sold Gold Investments on days that have been identified by Plaintiffs' expert consultants as being days on which the price for gold was suppressed, in accordance with the methodologies discussed in Section II.D. below. They were, thus, like all other Class Members, directly impacted by Defendants' manipulation of the markets for Gold Investments.

II. MULTIPLE ECONOMIC ANALYSES REVEAL ARTIFICIAL DOWNWARD SPIKES AROUND THE TIME OF THE PM FIXING

96. As confirmed by Congressional testimony and academic publications, "screens" are statistical tools based on economic models that use available data such as prices, bids, quotes, spreads, market shares, and volumes to identify the existence, causes, and scope of manipulation, collusion, or other illegal behavior. For instance, the use of "screens" was part of the initial analysis that eventually led to the discovery of the LIBOR rate-setting scandal that is still roiling the banking industry. Experts uncovered anomalous behavior in that interest-rate benchmark as compared to movements in other publically available data points (data points that were independent of the banks' purported individualized judgment).[16] Screens also led to the initial detection, in the summer of 2013, of foreign exchange benchmark collusion and manipulation, which resulted in excess of $3 billion in first round settlement payments by banks in the U.S., the

[15] Plaintiffs do not have comparable price information for over-the-counter gold derivatives, but expect to find the same close price correlation when this information is provided through discovery.

[16] *See generally* Testimony of Rosa M. Abrantes-Metz on behalf of the Office of Enforcement Staff, Federal Energy Regulatory Commission (Sept. 22, 2014), *available at* http://elibrary.ferc.gov/idmws/doc_info.asp?document_id=14274590.

U.K., and Switzerland in November 2014.[17]

97. All "screens" developed and employed by Plaintiffs' expert consultants show signs of manipulation occurring within the gold market, and in particular around the time of the PM Fixing. The data consistently reveals that the price spikes occur far more often around the PM Fixing than during any other part of the day. The data further reveals that those price spikes are greater in severity than when price spikes occur during other times of the day. And the spikes occurring around the PM Fixing are disproportionately in one direction – downward.

98. It is telling that these spikes very often begin *before* the official Fixing conference call commences, because it is only Defendants (and their co-conspirators) working together who could know where the PM Fix would end up. The evidence provided by all of these screens is overwhelming – prices around the PM Fixing not only moved abnormally and sharply in one direction, but they acted in a way that can only be explained by the joint manipulative conduct of the banks in charge of the Fixing itself – namely, Defendants here.

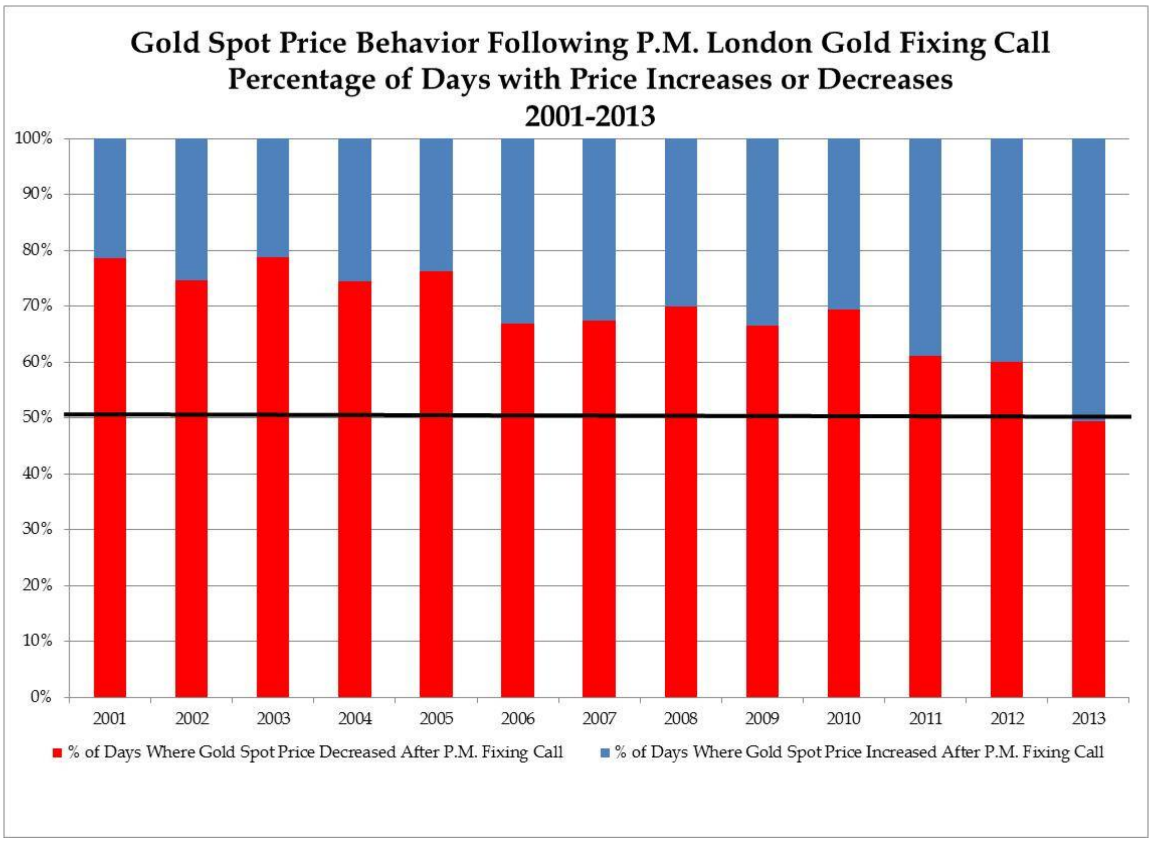
A. <u>The PM Fix Price Was Often Below the Gold Spot Price at 3:00 p.m.</u>

99. Perhaps the simplest method of uncovering anomalies in the behavior of prices around the time of the PM Fixing is to chart on how many days the spot price at 3:00 p.m. London Time (the start of the PM Fixing) was higher than the eventual PM Fix, however many minutes later the PM Fixing concluded. That is, how often the PM Fixing resulted in a lower gold spot price. One would naturally expect – when a large and diverse set of days over a period of years is studied – the prices during each day's fixing window to move up equally often as down. Indeed, the opening of the "auction" begins with what is supposed to be the current spot price. While prices can and do move as the Fixing unfolds, there is no reason (absent collusion)

[17] *See* Liam Vaughan and Gavin Finch, *Currency Spikes at 4 P.M. in London Provide Rigging Clues*, Bloomberg (Aug. 27, 2013), *available at* www.bloomberg.com/news/2013-08-27/currency-spikes-at-4-p-m-in-london-provide-rigging-clues.html.

that one would expect those prices to move predominantly one way or the other over many repetitions of the Fixing process.

100. Thus, one way to determine if prices are behaving abnormally – and thus, whether they are indicative of artificial manipulation – is to compare the percentage of days from 2001 to 2013 during which the price fell during the Fixing window (red in the chart below), compared to the percentage of days in which the price went up during the Fixing window (blue in the chart below).



101. As can be seen above, for twelve years prices fell between the start and end of the PM Fixing far more often than they rose between the start and end of the PM Fixing. These results are statistically anomalous – given that it is at least equally likely that prices would move up or down during the Fixing, the number of days on which the price decreased should be the same as the number of days on which the price increased. And this is particularly true when the

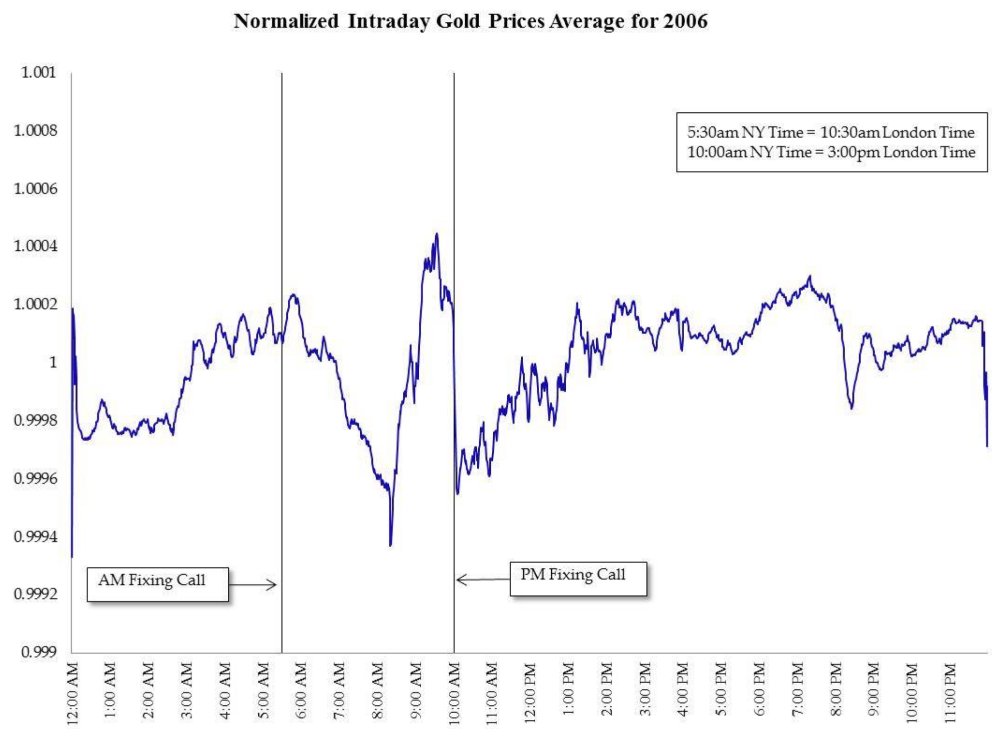
measurement period is more than a decade. Only in 2013 did the annual data begin to reflect what one would expect to see if the PM Fixing was not being predominantly manipulated downwards: an even split between up days and down days.

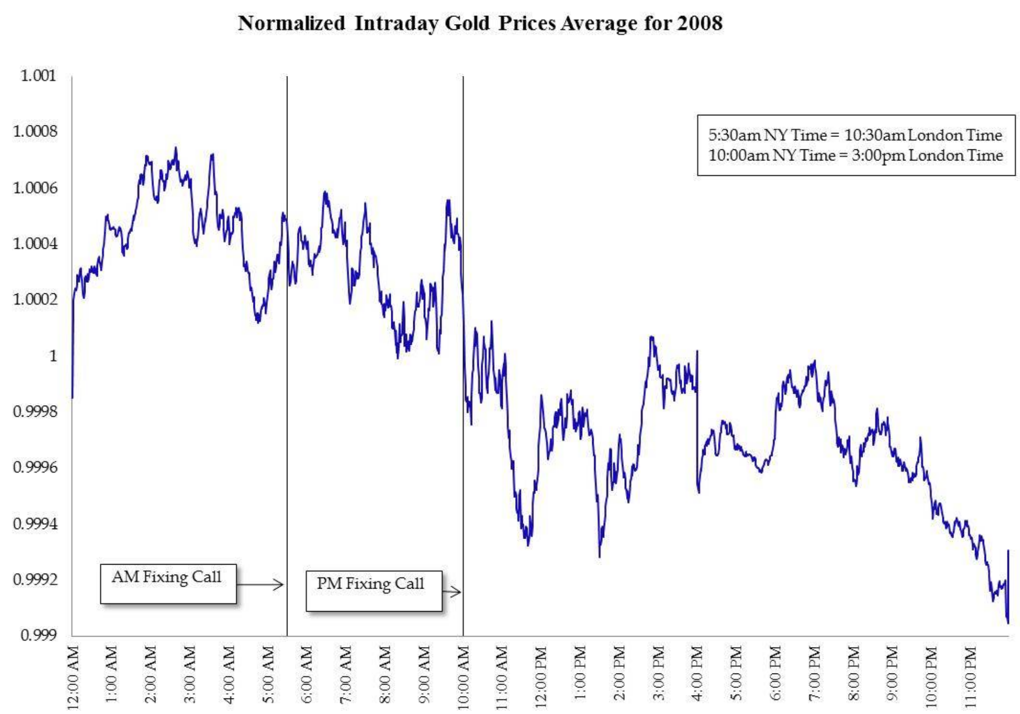
B. <u>A Comparison of Minute-by-Minute Prices Reveal a Pattern of Price Spikes Around the Fixing</u>

102. Plaintiffs worked with economists to dig deeper into the available data to determine *how much* unusual behavior could be seen around the PM Fixing, beyond merely counting up the days when prices went up or down.

103. Plaintiffs' expert consultants looked at intraday-minute tick data, which shows the upward or downward movement in price from one minute to the next. Prices were normalized by the average price within the same day so that prices within that day can be compared to the next day's movements, even if the prices are very different in absolute or dollar terms. This is particularly important in gold because prices can vary by many dollars from day to day, or month to month, within the same year. Normalization thus enables one to see whether pricing behavior at a particular time of day demonstrates a pattern of abnormal behavior as compared to pricing patterns at other times during the day.

104. Below are charts for 2006 and 2008. Analogous charts for the years 2001 – 2012 are included at Appendix C. What emerges is a clear picture of large price spikes beginning just before the PM Fixing (London time on the x-axis) and continuing until about the time the PM Fixing call ends. This data again shows that prices tended to move downward around the PM Fixing, as seen in the prior study. But it also demonstrates the unusual size and intensity of the downward spikes surrounding the PM Fixing. While other times of day see their ups and downs over time, none are as steep as the downward price spikes around the PM Fixing.

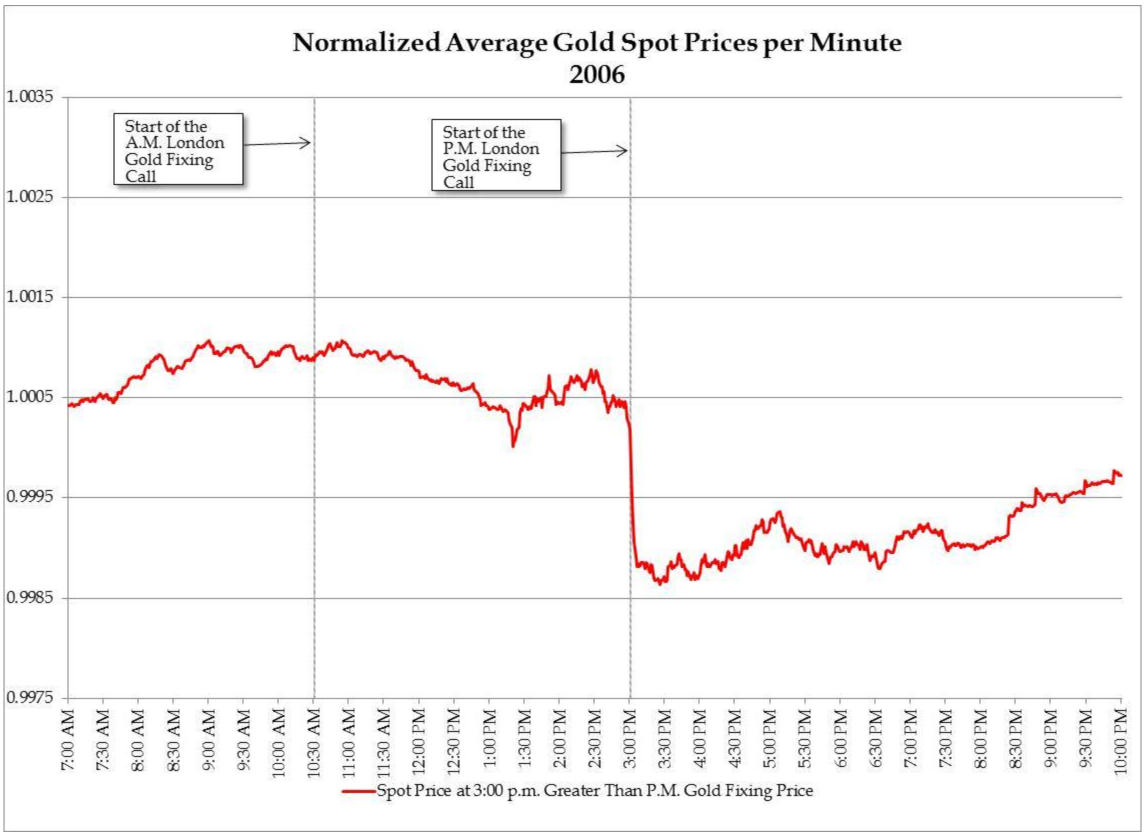


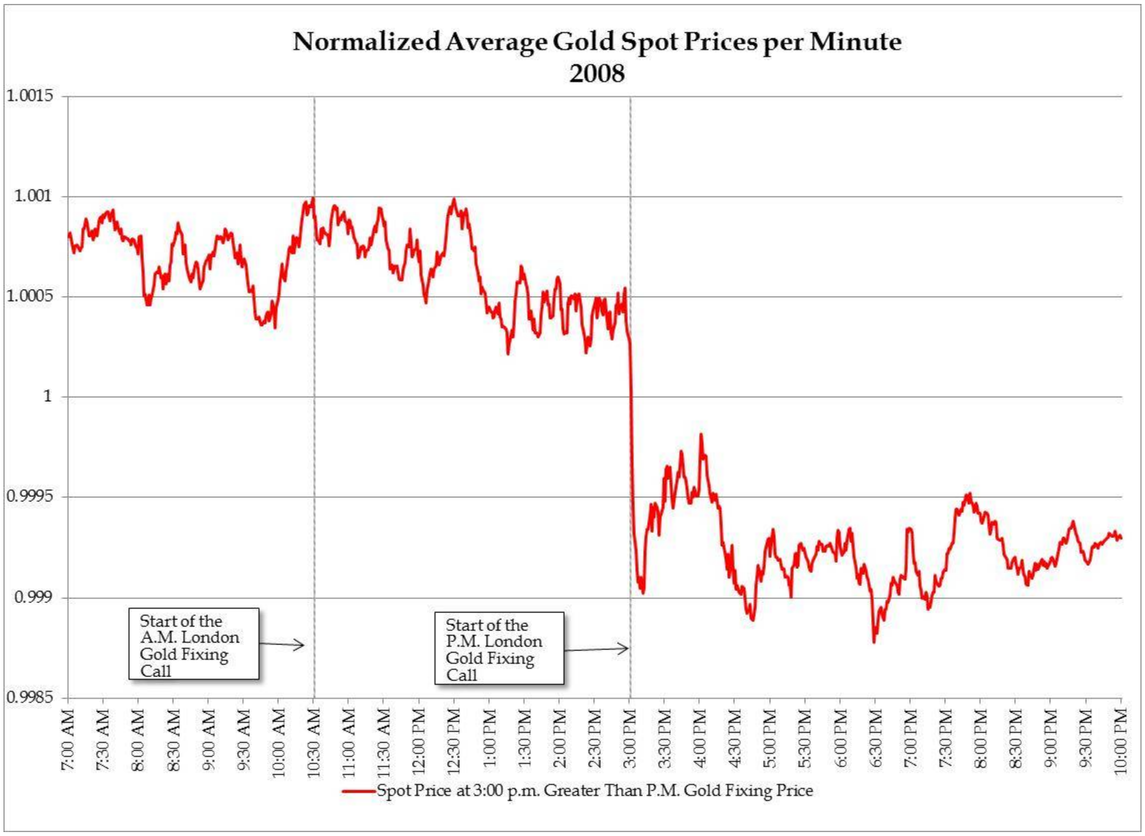


105. Another way to further isolate the timing of *intra-day* movements around the PM Fixing over a series of days (or in this case, years) is to present the same normalized average

prices within each year, but only for the days for which prices decreased during the call (which, as demonstrated above, were between 60 and 80% of the days between 2001 and 2012).

106. The results show an even more striking break in behavior around the time of the PM Fixing. Reproducing the two previous charts for 2006 and 2008, but using only the normalized averages per year for the days when the price dropped during the PM Fixing, prices are shown to drop sharply and quickly downward during the PM call.

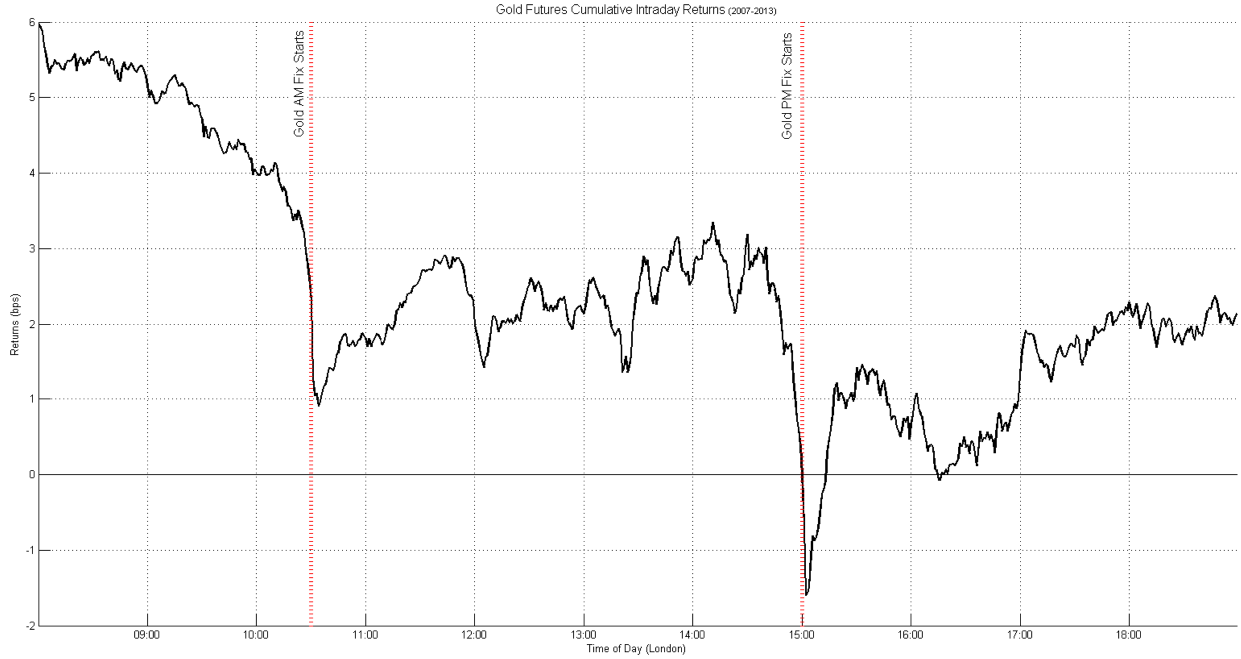




107. Appendix D contains further such graphs, for 2001 through 2012. Each displays the same pattern of prices, over the entire course of the year behaving far differently around the time of the Fixing, than they do at any other point in the day.

108. As a consequence of Defendants' manipulation, on average there was a 4 basis point[18] downward bias in intraday returns on COMEX gold futures around the PM Fixing, as indicated in the following chart.

[18] A "basis point" is a unit of measurement used in finance to describe the percentage change in the value or rate of an instrument. One basis point is equal to 1/100th of 1%. A consistent rate of four basis points per day equates to 11% per annum.

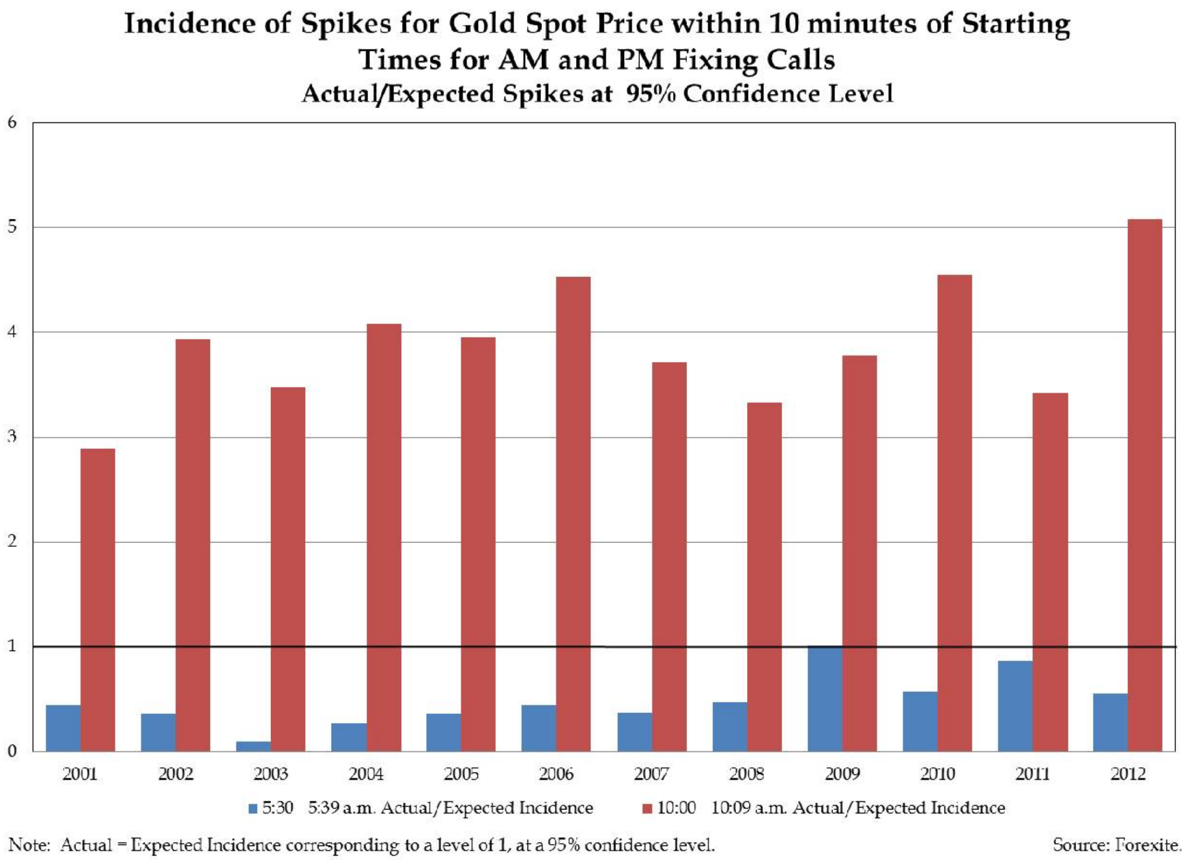


109. Overwhelmingly, investors such as Plaintiffs trading in proximity to the PM Fixing on futures markets suffer monetary injury. The preceding chart confirms that the difference in returns of persons trading gold futures at times *other than* the PM Fixing are not statistically significant. While they range typically between +/1 bps, this is consistent with market noise or information arriving at random times throughout the day. However, the trade minute near the start of the Fixing uniquely show statistically significant negative returns.

C. <u>The PM Fixing Downward Spikes Stand Out as Against Movements at Any Other Time of Day – Even the AM Fixing</u>

110. Price spikes can occur for any number of reasons. But the point of the above charts – which gather data across an entire year's worth of trading days – is that a spike is far more likely to occur around the PM Fixing than any other time of day. Indeed, the incidence of downward price spikes after the start of the PM Fixing is approximately four times larger than would be expected if the price changes occurred randomly throughout the day. Such a result would not occur by chance.

111. Notably, this break with expectations was *not* seen in the AM Fixing. The below chart compares the amount of downward price "spikes" around the time of the two Fixings, with "1" representing the number that one would expect to occur in *any* given, similarly-sized time window, absent manipulation. As the red bars illustrate, the PM Fixing saw four times as many downward spikes as would have been expected when compared to price spikes throughout the whole day. As seen in the blue bars, the AM Fixing actually saw *fewer* spikes than what would have been expected by random chance.



112. That the price spikes studied above were anomalous in their clustering around the Fixing is also confirmed by the fact that Plaintiffs' expert consultants measured not just the presence of spikes, but perhaps even more importantly, their *size*. Spikes occurring around the PM Fixing were found to be much *larger* than spikes occurring in other times of the day. The experts identified the "worst minute" of the day by comparing the price that minute with the

prices both before and after that minute, identifying those minutes where the price deviated most from other minutes around it.

113. There are multiple ways to do this comparison, but as seen below they all reach the same result. Comparisons can be made to the price for every minute of the day with the average of prior prices (the "lagging average"), subsequent prices (the "leading average"), and prior and subsequent prices (the "centered average"). For example, a comparison of the price at 10:00 a.m. New York time with an average of prices from 9:30 a.m. through 9:59 a.m. (the lagging average), an average of the prices from 10:01 a.m. through 10:30 a.m. (the leading average), and the average of the prices from 9:30 a.m. to 10:30 a.m. (the center average). The "squared deviation" between those averages and the price at any one particular minute enables the identification of which time periods experienced the most severe/largest movements – the "worst minutes" of the day.

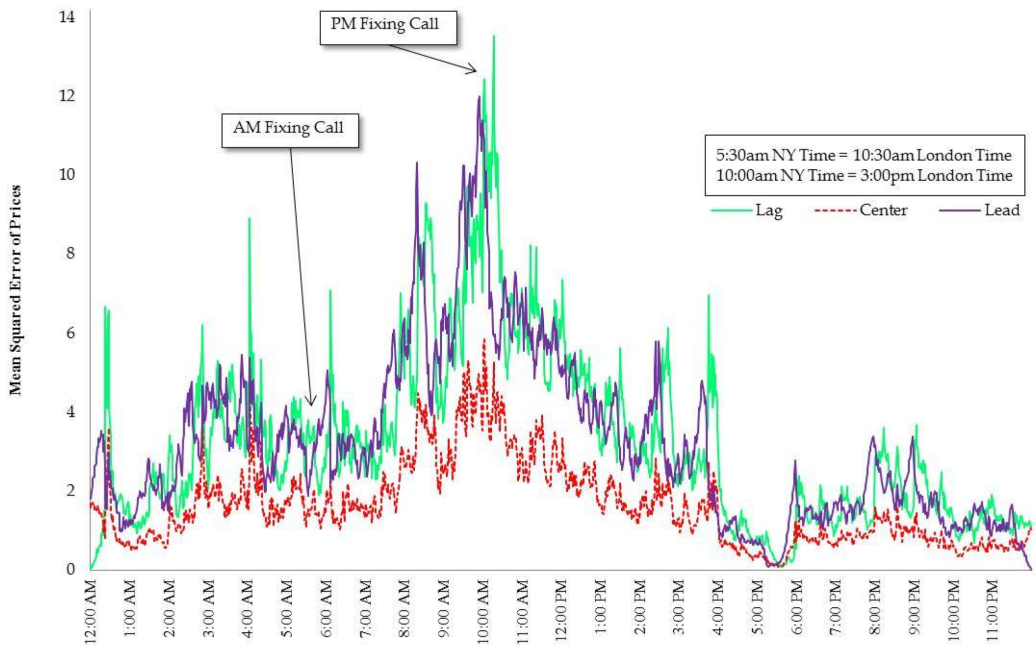
114. The results of the analysis, like the others, are striking: the concentration of "worst minutes" around the PM Fixing is *much* higher than what would occur by random chance.[19] In 2006, for example, the "worst minute" centered on the PM Fixing *three to four times* more often than what would have occurred by random chance. Again, such outlier behavior was not seen around the AM Fixing.

115. The following charts for 2011 (in New York time) demonstrate the extent to which the price movement at the PM Fixing is an outlier when compared to the lagging, leading, or centered average of the prices surrounding that minute – in other words, they show how the price in the minutes around the Fixing were *far* more anomalous than the prices occurring before and after, than were the prices of any other time period of the day. Charts for the years 2001 –

[19] This is, notably, a conservative approach to determining suspicious days, since it does not count a day as suspicious where significant spikes occur around the AM or PM Fixing that are not the "worst minutes" of the day.

2012 may be found in Appendix E.

Timing & Intensity of Outlier Prices Compared to Previous and Following Prices in 2011

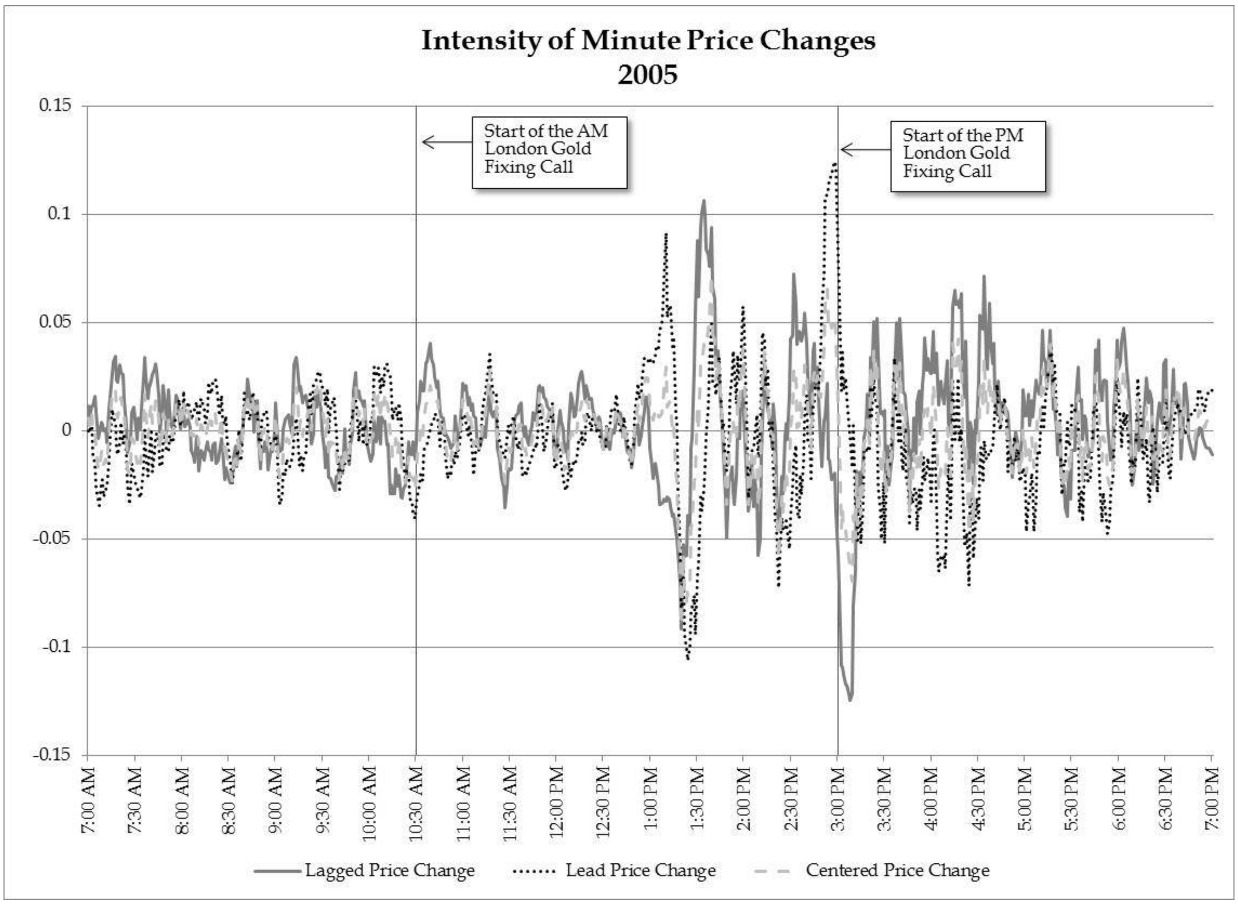


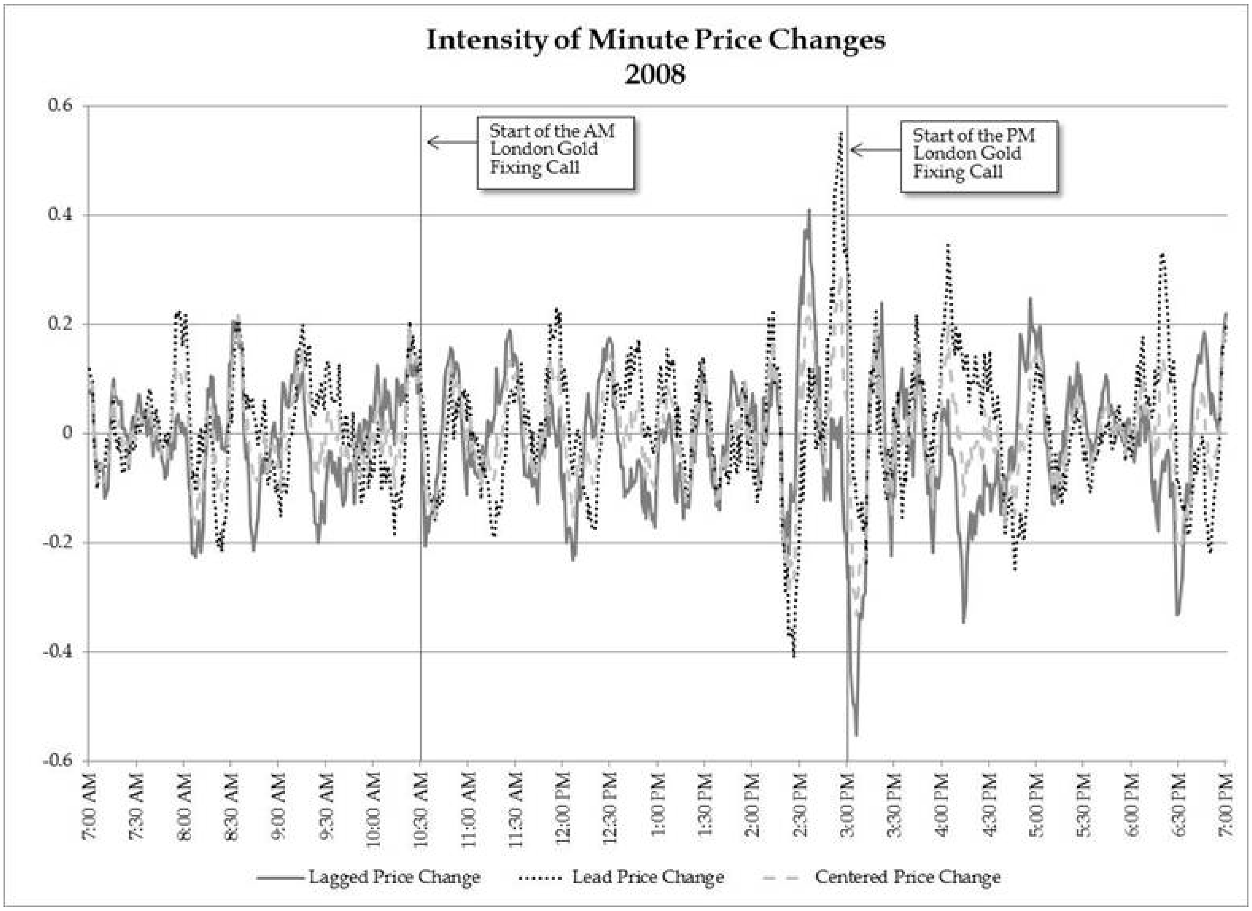
116. The size of the downward spikes occurring around the PM Fixing – whether viewed by the minute's price as compared to the lagging (green), centered (red) or lead (purple) averages – confirms not just that the worst minutes are unnaturally centered around the PM Fixing, but that when they occur around the PM Fixing, they are *much bigger* outliers than when a day's worst-minute falls at some other point of the day. Put another way, the "intensity" of downward spikes is much greater when they occur around the Fixing than when they occur at other times of the day. Again, this would not be expected if the spikes around the Fixing were happening due to normal market conditions.

117. The following chart presents another similar analysis tracking for 2005 and 2008 the "intensity of price changes" in which the price at each minute is compared to either the price 10 minutes before (lag), 10 minutes after (lead), or the average of the two (centered) for two years. More years are depicted in Appendix F. One again sees spikes in behavior around the PM

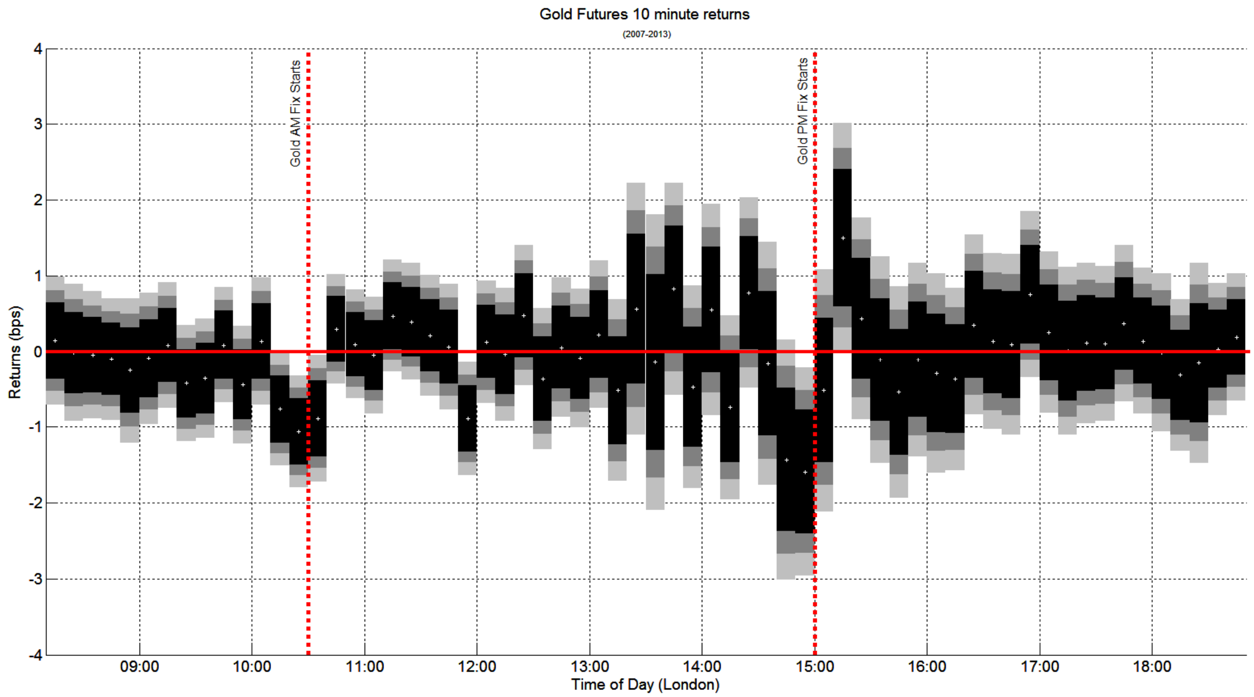
Fixing that are not observed around the time of the AM Fixing or any other time of day.

118. Whether the lagging, leading, or centered prior prices are used as the comparison point, the largest spike is around the time of the PM Fixing. This can be seen by spikes in prices that become larger and more negative at 3:00 p.m. London time, as the vertical line at 3:00 p.m. marking the beginning of the call lies almost exactly on top of the largest negative spike by any of the three measures.





119. Another way to look at the uniqueness of the anomaly around the PM Fixing is to analyze the average price changes, *i.e.*, the "returns", observed throughout the trade day. The chart below measures such returns, in basis points (*i.e.*, hundredths of a percentage) across 10 minute intervals throughout the London trade day 2007 – 2013. The chart maps out in black (95% confidence interval), dark grey (99% confidence interval), and light grey (99.9% confidence interval) the average basis point returns observed. As can be seen, it is *only* around the London Fixing that prices show statistically significant negative "returns." That is, while prices move up and down throughout the day, it is only at the time of the London AM and PM Fixings that prices show a consistent down swing, with by far the largest downward swing occurring at the PM Fixing.



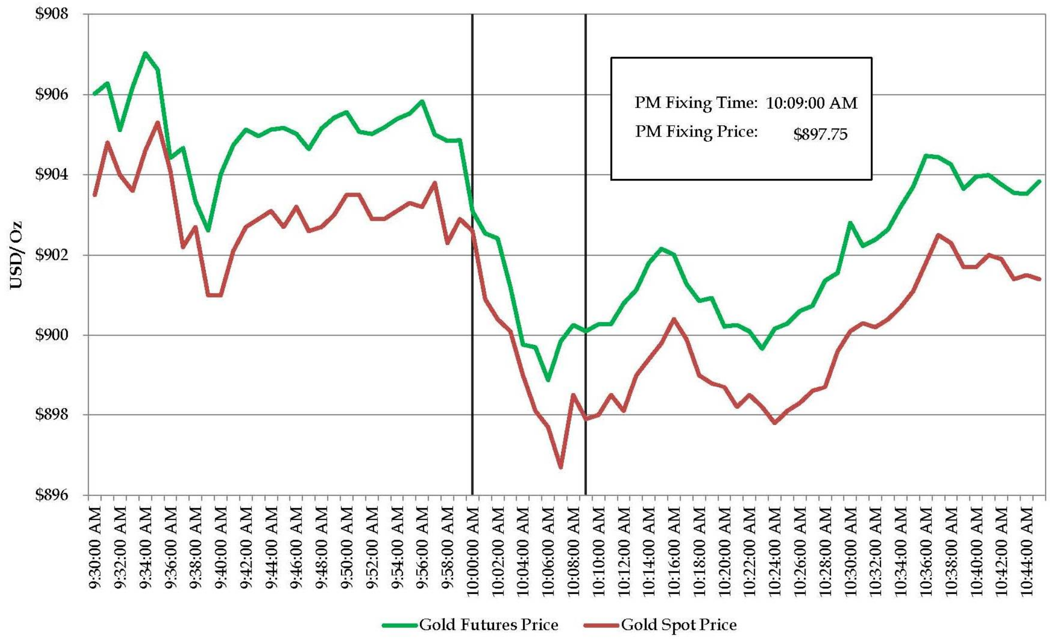
D. <u>Analyses of Specific Days Confirm Abnormal Spikes Around the PM Fixing</u>

120. The studies above considered entire years and each found that prices were more likely to move downward, more quickly and in larger size, around the time of the PM Fixing than at any other time of day. The pattern revealed by using a data set as large as an entire year, and run for multiple years, leaves no doubt that prices around the PM Fixing consistently behaved differently than prices at any other point in the day. Specifically, prices around the PM Fixing were much more likely to move downward, much more quickly, and by a much larger amount, than at any other time of day.

121. An analysis of individual days confirms that, in fact, large downward price movements occurred around the time of the Fixing. As seen in the following charts, prices for both gold futures and spot gold plummeted right around the time of the Fixing on April 2, 2009, May 8, 2009, and February 3, 2012. Additional charts with illustrating data from other specific

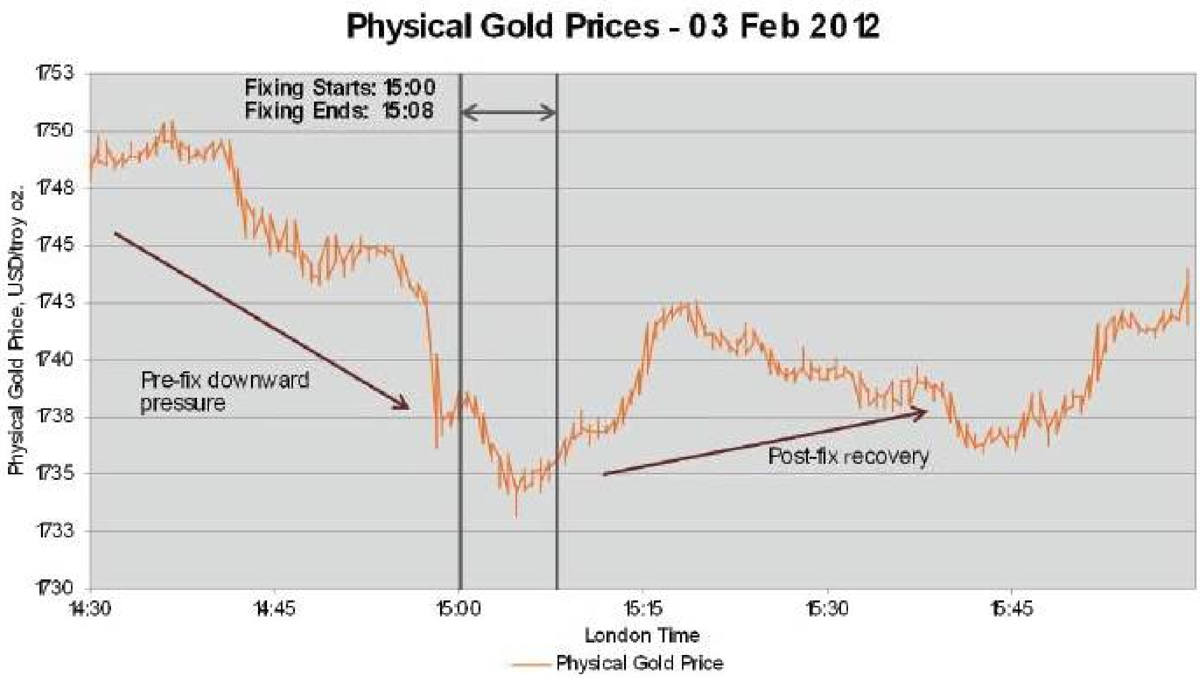
days are contained in Appendix G.[20]

April 2, 2009
Gold Futures Price and Gold Spot Price
(Vertical bars represent the start and end of the London PM fixing call)



May 8, 2009
Gold Futures Price and Gold Spot Price
(Vertical bars represent the start and end of the London PM fixing call)

[20] These days were chosen merely as examples to illustrate the point of downward manipulation at the time of the PM Fix.



122. Individual days are characterized by the same patterns that exist in the aggregate data. Just before the call is initiated, downward movements begin, and then accelerate. That the downward movement occurs before the call begins confirms it cannot be the result of the market learning anything from the Fixing itself. Rather, these movements can only be the result of collusive and manipulating trading techniques employed by Defendants to create downward pressure in the market and thus distort the Fixing. Prices sometimes partially recovered following the Fixing, which further confirms that the Fix itself was not the result of true supply and demand but rather was set artificially low contrary to true market dynamics.

123. In line with the studies discussed above, Plaintiffs' expert consultants have been able to preliminarily identify numerous days throughout the Class Period on which Defendants conspired to and did manipulate the PM Fixing, and thereby set the price of gold at artificially low levels. These days are set out in Appendix A. Appendix B lists dates on which Plaintiffs executed a sale on one of the specific days already identified in Appendix A as being subject to specific downward suppression by Defendants and their co-conspirators. The list of days

presented in Appendix A were identified by several reinforcing methodologies employed by Plaintiffs' economists. In general, the experts looked for days where the market's behavior around the PM Fixing was significantly different from that in other times during that same day. Specifically, the experts engaged in the following methodologies:

124. *First*, they looked for days where the Fix deviated significantly from the spot price at the start of the PM Fixing and then examined the results for days where the spot price rebounded to its pre-Fixing levels. The expert consultants also looked for days where the Fix broke a trend for the overall market that day, *i.e.*, the spot prices were going up, but the Fix went down. Both are signs that the Fix was being driven by something other than the market for gold that day. Relatedly, the experts looked for days where the futures trading volume showed signs of anomalies around the time of the Fix – signs that those "in the know" were moving to cash in or out to move the Fix.

125. *Second*, the expert consultants identified days where the price during the PM Fixing window fell, despite a trend of rising prices for that day (London time).

126. *Third*, they identified days where the PM Fix was among the lowest spot prices of that day. They found the PM Fix was in the lowest percentiles far more often than one would expect from a random distribution of daily activities.

127. *Fourth*, they identified days when the change in spot market price around the PM Fixing was the sharpest movement seen in the entire day. Results indicated that the largest and quickest price movements occurred far more often around the PM Fixing, than in any other time of day.

128. *Fifth*, the expert consultants identified days where the normalized spot price of the day around the PM Fixing was among the lowest spot prices of the year. This was accomplished by normalizing prices on each day by their daily average, then averaging across minutes and

days within an entire year. Unlike the preceding approaches, this method searches for days with very low spot prices around the PM Fixing relative to all the days of the year. This normalization process captures the average pattern of price changes throughout a day and across a year, independent of whether the nominal values for the prices were very different on one versus another day of the year.

III. THERE IS NO INNOCENT EXPLANATION FOR THE ABNORMALITIES SEEN IN THE PRICING DATA SURROUNDING THE PM FIXING

A. If the PM Fixing Was Causing Spikes Because of the Release of New Information, the Spikes Should Occur in Both Directions (But Do Not)

129. Plaintiffs' expert consultants considered whether there were large price movements around the time of the PM Fixing merely because the PM Fixing represents the release of new information into the market. As an initial matter, this explanation fails to account for the fact that the prices often began to move *before* the PM Fixing conference call began. Defendants (and their co-conspirators) were the only market participants that could accurately predict, and thus confidently trade as to profit off of, the PM Fix before the PM Fixing even began.

130. More basically, if the PM Fixing was causing spikes merely because it represented new information to the market – *i.e.*, the spikes were the result of legitimate price discovery rather than artificial manipulation – over a multi-year period one would expect the resulting "spikes" to occur relatively equally in both directions. The new information released to the market around the PM Fixing should, over so many days, release just as much information indicating prices should go up, as it would release information indicating prices should go down.

131. That is not what happened. Over a sufficiently long time horizon (such as the current analysis, which looks at over a decade's worth of trading days), the PM Fix should fall below the median price for that day 50% of the time, and above the median price for that day

50% of the time. But as seen in Sections II.A.–D. above, the PM Fix was "low" far more often than it was "high." In fact, as seen graphically in Appendix H, a study of *thousands* of days found that the PM Fix fell below the median spot price for that day at least 60% or more of the time for most years from 2001 to 2012, while in a non-manipulated market it would have been below the median spot price 50% of the time, and above the median 50% of the time.

132. To isolate further the claim of discovery, Plaintiffs' expert consultants analyzed instances where the Fix was *very* high or *very* low. Again, if the PM Fixing was causing price spikes because it represented new information to the market, then the PM Fixing would have an equal chance of falling into the very low outliers of prices for the day as it does falling into the very high outliers. Over such a multi-year period as studied here – particularly when in many years the overall trend in gold prices was up – there is no reason to believe the PM Fixing released consistently unexpected "bad" news more often than it released unexpected "good" news.

133. If the spikes around the PM Fixing were the market's natural reaction to the release of new information, one would see the PM Fix fall below the (low) 5th percentile of prices for that day as often as above the (high) 95th percentile. So, too, one would expect the PM Fix to fall below the (low) 10th percentile as often as above the (high) 90th percentile.

134. To the contrary, in every year studied, the PM Fix was *far* more likely to be in the very lowest range of the day's prices, than in the highest.

135. The following charts compare the number of times the PM Fix fell below the 5th and 10th percentiles, to what should have been the relatively equal number of times the PM Fix fell above the 95th and 90th percentiles, respectively. The distributions at the extreme percentiles are far from equal. For instance, the PM Fix was below the 5th percentile *twice* as often as one would expect if prices were evenly distributed throughout the day.

136. This confirms that the PM Fix was not causing spikes *as a general matter,* but instead was causing *downward spikes, specifically*, and at a frequency far *beyond* what would be expected if prices were just reacting naturally to new information made available during the PM Fixing. In addition, it confirms that the PM Fixing was also causing upward spikes at a frequency far below what would be expected if those prices were just reacting to the new information made available during the PM Fixing. Not only are these results beyond what would be expected if the PM Fixing were releasing "good" and "bad" news equally often – which, again, is a reasonable presumption given the long time horizon studied – but the results are so disproportionately in favor of downward spikes that it is statistically impossible that they occurred by random chance.

137. Again, the lowest divergence between the Fix being a high-outlier and a low-outlier – for both the 5th/95th percentiles and the 10th/90th percentiles – occurred in 2013, when Defendants' cartel began to come under regulatory scrutiny.

Ranking Daily Percentile for the London PM Gold Fixing Price (Top and Bottom 5%)

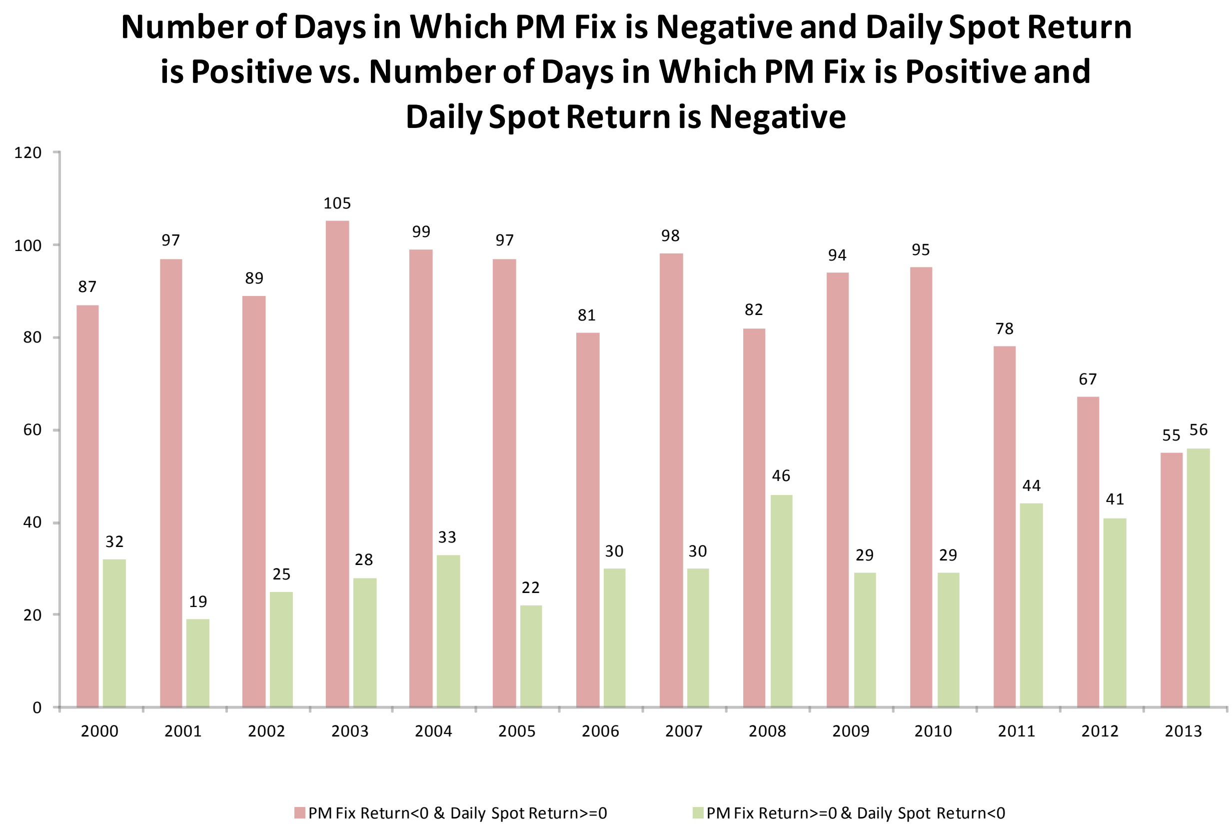
Year	% of Days With Percentile Rank Less Than 5% [A]	% of Days With Percentile Rank Greater Than 95% [B]	Difference [C] = [A] - [B]
2001	12.0%	0.8%	11.2%
2002	11.2%	1.2%	10.0%
2003	9.6%	1.2%	8.4%
2004	6.7%	2.4%	4.4%
2005	8.4%	1.2%	7.2%
2006	7.6%	5.6%	2.0%
2007	7.2%	4.0%	3.2%
2008	9.9%	4.8%	5.2%
2009	11.6%	4.0%	7.6%
2010	12.0%	3.6%	8.4%
2011	10.8%	5.6%	5.2%
2012	11.6%	6.8%	4.8%
2013	8.8%	6.8%	2.0%
2001-2013 Average	*9.8%*	*3.7%*	*6.1%*

Ranking Daily Percentile for the London PM Gold Fixing Price (Top and Bottom 10%)

Year	% of Days With Percentile Rank Less Than 10% [A]	% of Days With Percentile Rank Greater Than 90% [B]	Difference [C] = [A] - [B]
2001	20.7%	2.4%	18.3%
2002	17.2%	2.0%	15.2%
2003	17.5%	2.0%	15.5%
2004	8.7%	4.0%	4.8%
2005	13.2%	3.2%	10.0%
2006	12.8%	8.0%	4.8%
2007	15.1%	8.0%	7.2%
2008	14.3%	10.3%	4.0%
2009	15.1%	6.0%	9.2%
2010	23.1%	6.8%	16.3%
2011	16.5%	9.6%	6.8%
2012	18.4%	12.0%	6.4%
2013	12.0%	8.4%	3.6%
2001-2013 Average	*15.7%*	*6.4%*	*9.4%*

B. The Spikes Often Occurred in the *Opposite* Direction of the Market's Overall Movement That Day

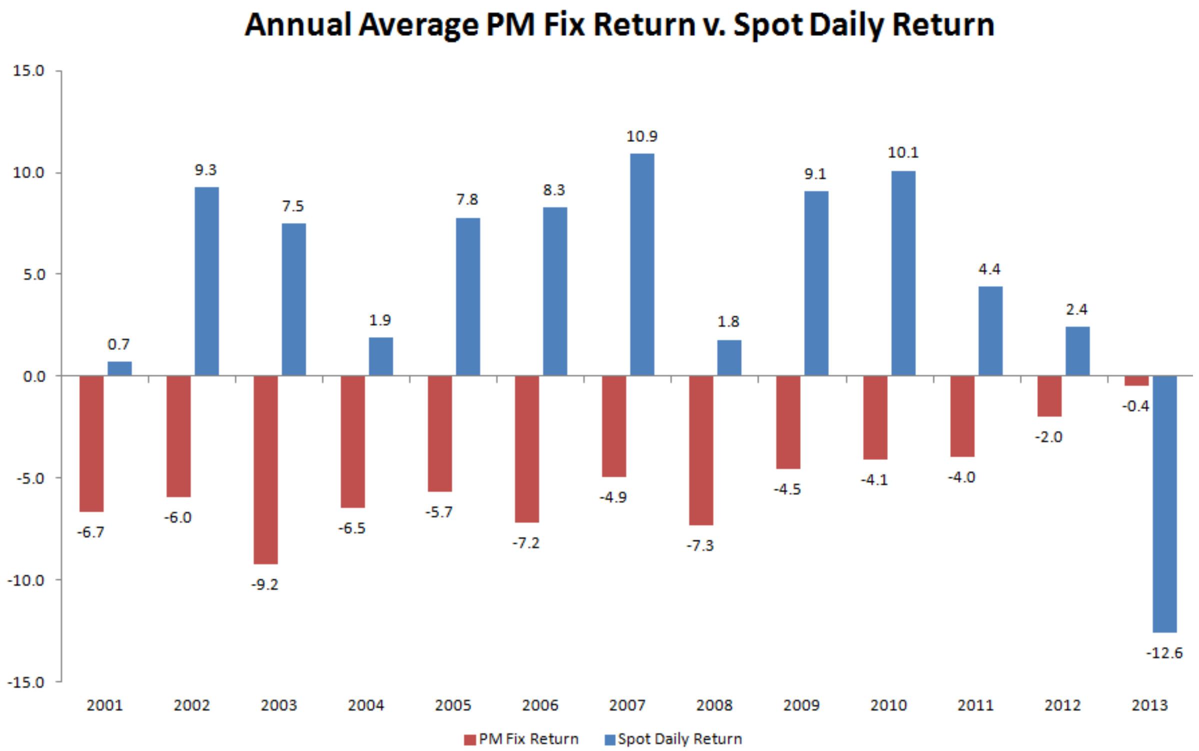
138. The PM Fixing spikes cannot be understood as merely the result of perceptions of the market's likely movements for the entire day. To the contrary, the PM Fixing's downward movement was often ***against*** the overall price movement for gold on that day. The red bars on the following chart indicates the numbers of days in which the PM Fix was "negative" (meaning that the spot price for gold *decreased* between the start and end of the Fixing) despite the fact that the daily spot price was "positive" (meaning that the price increased between the start and the end of the London trading day). The green bars indicate the opposite (*i.e.,* that the spot price for gold *increased* between the start and end of the Fixing, despite the fact that the daily spot price was "negative").



139. The fact that the red bars are much higher than the green indicates that PM Fix prices moved downward ***despite*** the price of gold going up that day overall, far more often than the opposite occurred. It should also again be noted that this pattern appears to subside – when annual data is considered – in 2013: the year that regulators across the globe began investigating benchmarks other than LIBOR.

140. Another way to see this disproportion is to compare the average "return" if one were to buy gold at a fixed time during one London trading day that is not around the PM Fixing, and then sell at the same fixed time during the following London trading day, versus what the return would be if one were to buy at the start of the PM Fixing then sell at the end of the PM Fixing. As seen in the blue bars in the following chart, the daily spot trades, if carried out over the entire period, generate consistent positive returns (because the price of gold overall was generally going up for those years). However, as seen by the red bars in the following chart,

consistently carrying out the trades around the PM Fixing window would have significantly negative returns, because the price was consistently falling during the PM Fixing.



141. The wide gap that exists between the performance of these two approaches, carried out repeatedly and consistently over a long period of time, confirms the PM Fixing pricing spikes were anomalous and opposite to the market's overall movements.

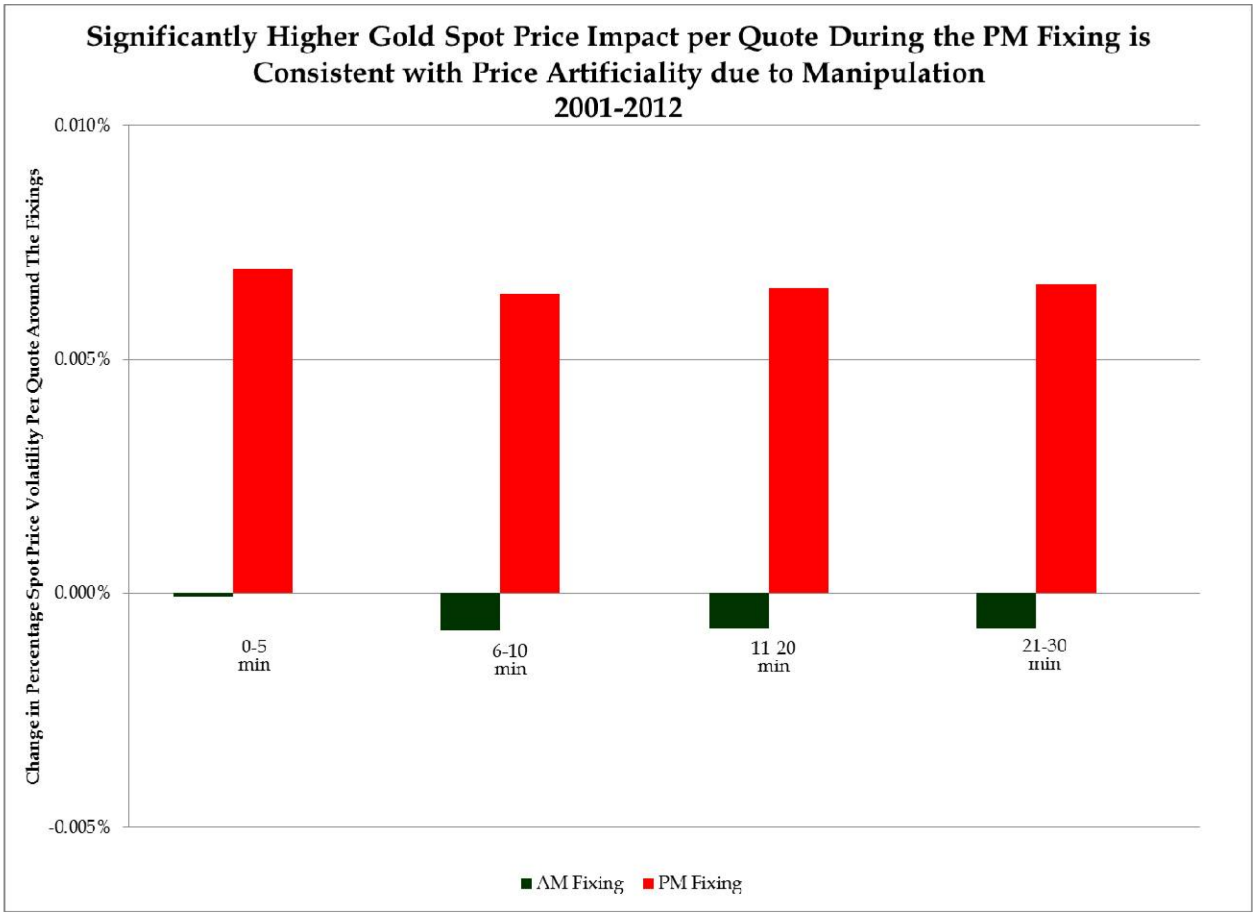
C. <u>Price Movements Around the PM Fixing Are Not Consistent With Price Discovery</u>

142. In a liquid market, a greater volume of trades generally results in a lower ability of each trade or unit of volume to affect price. Economists commonly refer to how much a price moves in response to a trade or volume traded as "price impact." Highly liquid times of the day are usually associated with the opening and closing of floor trading. In the gold spot market, an especially liquid time of day would be during the PM Fixing because large volumes are traded then.

143. As liquidity increases in a non-manipulated market, each trade or unit of volume should have a lesser ability to affect or move prices. Very large price impact per quote during very active trading times of the day is evidence of price artificiality rather than normal price discovery.

144. The next chart show how the price impact of a quote either decreases (negative bars) or increases (positive bars) during the minutes immediately following the start of the AM and PM Fixings when compared to the average price impact throughout the rest of the day. For the minutes immediately following the start of the AM Fixing (0-5, 6-10, 11-20, and 21-30 minutes after 10:30 a.m.) the price impact of a quote is lower than throughout the rest of the day, as one would expect given that the AM Fixing is an especially liquid time for the gold spot market.

145. However, the opposite is true during the PM Fixing and for the periods immediately following. Despite the fact that the period around the PM Fixing is one of the most liquid times of the day for gold trading, the price impact per quote submitted following the start of the PM Fixing is significantly larger than throughout the rest of the day, and much larger than the impact following the start of the AM Fixing. This result is consistent with the PM Fix prices being artificial due to Defendants' manipulative conduct during and around the time of the PM Fixing, and is inconsistent with normal price discovery.



IV. THE PRICE MOVEMENTS AROUND THE PM FIXING WERE THE RESULT OF DEFENDANTS' MANIPULATIONS

146. As discussed previously, pricing data indicates highly unusual behaviors around the PM Fixing. Section II. explained that this data defies any innocent explanation. As elaborated below, one reason it defies innocent explanation is because Defendants were manipulating gold prices to benefit their own positions.

A. The "Tools of the (Manipulation) Trade" Are Well Known to Defendants

147. As previously noted and expanded upon in Section VI.C. below, Switzerland's financial regulator FINMA has found "serious misconduct" by UBS in precious metal trading.[21]

[21] FINMA, Press Release: FINMA sanctions foreign exchange manipulation at UBS (Nov. 12, 2014), *available at* www.finma.ch/e/aktuell/pages/mm-ubs-devisenhandel-20141112.aspx.

Indeed, FINMA's chief executive officer recently stated that the regulator has "seen clear attempts to manipulate fixes in the precious metals markets."[22] Barclays has admitted to manipulating the Fixing. Defendants' tools of manipulation were laid bare by these investigations, as well as by related investigations into similar conduct in connection with other benchmark litigation.

148. For instance, the CFTC found that Defendant HSBC, as well as other gold industry participants such as UBS, Citibank, JPMorgan, and Royal Bank of Scotland, actively colluded to manipulate the price of Forex benchmarks. This manipulation resulted in the CFTC's imposing fines in excess of $1.4 billion dollars on the five banks. The U.K.'s Financial Conduct Authority imposed a further £1.1 billion in fines on the same five banks in respect of the same manipulation in the U.K.[23] Defendant Barclays is reported to have avoided similar findings and fines only because it opted out of settlement talks "at the last minute."[24] As discussed below, many of the techniques used there were employed here as well.[25]

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[22] Nicholas Larkin and Elena Logutenkova, *UBS Precious Metals Misconduct Found by Finma in FX Probe*, Bloomberg (Nov. 12, 2014), *available at* www.bloomberg.com/news/2014-11-12/finma-s-ubs-foreign-exchange-settlement-includes-precious-metals.html.

[23] U.K. Financial Conduct Authority, *Final Notice to HSBC Bank plc* (Nov. 11, 2014), at 3, *available at* www.fca.org.uk/your-fca/documents/final-notices/2014/hsbc-bank-plc. *See also* U.K. Financial Conduct Authority, *Final Notice to UBS AG* (Nov. 11, 2014); U.K. Financial Conduct Authority, *Final Notice to Citibank, N.A.* (Nov. 11, 2014); U.K. Financial Conduct Authority, *Final Notice to The Royal Bank of Scotland plc* (Nov. 11, 2014). In most cases, these fines were reduced by 30% for early cooperation.

[24] *See* Margot Patrick and Max Colchester, *Barclays Pulls Out of Forex Settlement Amid New York Complications*, The Wall Street Journal (Nov. 12, 2014), *available at* http://online.wsj.com/articles/barclays-pulls-out-of-forex-settlement-amid-new-york-complications-1415792606.

[25] An FCA video explaining HSBC's Forex manipulation is available at http://play.buto.tv/HcMF6. The CFTC has also released multiple examples of trader misconduct in private chat rooms by which Forex-trading banks – including Defendant HSBC – were able to profit from manipulation of currency benchmarks. *See* Commodity Futures Trading Commission, Examples of Misconduct in Private Chat Rooms, *available at* www.cftc.gov/ucm/groups/public/@newsroom/documents/file/hsbcmisconduct111114.pdf.

149. *First*, Defendants used chat rooms, instant messages, phone calls, proprietary trading venues and platforms, and e-mails to coordinate among themselves (and likely other bullion banks) to ensure members of attempts to move the market in one way or the other were not undone (unwittingly or not) by the contrary efforts of other members or other large banks. In the context of currency manipulation, the CFTC found that Defendant HSBC, as well as other Gold industry participants such as UBS, Citibank, JPMorgan, and Royal Bank of Scotland, "used private electronic chat rooms to communicate and plan their attempts to manipulate the Forex benchmark prices for certain currency pairs."[26] With respect to precious metals, FINMA found that "just as in foreign exchange trading," evidence showed that the banks shared information on their client orders, and information about expected future orders, with third parties (*i.e.*, other banks).[27]

150. *Second*, with information in hand and a decision made to move in a particular

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These videos and other documentation detail how the concepts of "netting," "taking out the trash," "building," and "giving ammo" were routinely deployed in the Forex arena.

[26] U.S. Commodity Futures Trading Commission, *Order Instituting Proceedings Pursuant to Sections 6(c)(4)(A) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions in the matter of HSBC Bank plc* (Nov. 11, 2014), at 2, *available at* www.cftc.gov/ucm/groups/public/@lrenforcementactions /documents/legalpleading/enfhsbcorder111114.pdf. *See also* U.S. Commodity Futures Trading Commission, *Order Instituting Proceedings Pursuant to Sections 6(c)(4)(A) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions in the matter of UBS AG* (Nov. 11, 2014), at 2; U.S. Commodity Futures Trading Commission, *Order Instituting Proceedings Pursuant to Sections 6(c)(4)(A) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions in the matter of Citibank, N.A.* (Nov. 11, 2014), at 2; U.S. Commodity Futures Trading Commission, *Order Instituting Proceedings Pursuant to Sections 6(c)(4)(A) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions in the matter of JPMorgan Chase Bank, N.A.* (Nov. 11, 2014), at 2; U.S. Commodity Futures Trading Commission, *Order Instituting Proceedings Pursuant to Sections 6(c)(4)(A) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions in the matter of The Royal Bank of Scotland, pls* (Nov. 11, 2014), at 2.

[27] FINMA, *Foreign exchange trading at UBS AG: investigation conducted by FINMA – Report* (Nov. 12, 2014), *available at* www.finma.ch/e/aktuell/Documents/ubs-fx-bericht-20141112-e.pdf.

direction, the colluding banks would equip each other with the tools to do so. In the currency context, where one of the five above-mentioned banks had a contrary book of orders, those orders would be "netted off" with third parties in order to reduce the number of adverse orders that were to be processed during the pivotal measurement window – a process referred to as "taking out the filth" or "clearing the decks."[28]

151. When the banks had orders going in the same direction, they would "build" the orders by transferring them between other conspirators – a process referred to as "giving you the ammo." That way one bank could more easily control the process of ensuring the trades had the maximum effect at just the right time. Again, the CFTC found that the above-mentioned banks – including Defendant HSBC – repeatedly engaged in such behavior to manipulate Forex benchmarks, including that they "altered [their] trading positions to accommodate the interests of the collective group, and agreed on trading strategies as part of an effort by the group to attempt to manipulate [downward] certain FX benchmark rates."[29]

152. Defendants here engaged in similar practices in the closely analogous context of gold – why else would they have already been found to have been sharing the order data, if not to use it to their collective advantage? And how else could one explain the routine, large movements down – *before the Fixing even began, i.e.*, before anyone *but* Defendants had information about what was about to occur? *See* charts in Sections II.B. (showing movement began even before the PM Fixing).

153. The gold and Forex markets, their benchmarks (including the susceptibility of those benchmarks to manipulation), and Defendants' respective trading desks were closely

[28] *See* U.K. Financial Conduct Authority, *Final Notice to HSBC Bank plc* (Nov. 11, 2014), at 16.

[29] *Id.* at 17.

related. Indeed, in the case of UBS's 2013 manipulation of the Forex and precious metals market, FINMA found that "[t]he PM spot desk responsible for the bank's precious metals trading has been an organizational unit of the bank's Foreign Exchange Spot Desk since the end of 2008."[30] It is no surprise then, that the tools of manipulation now proven to have been used by the banks – including Defendant HSBC – to manipulate the Forex markets were also used to manipulate the PM Fixing.

154. *Third*, even if Defendants did not have enough "ammo" to move the market, they would just invent some. This has been called "painting the screen" – placing orders to give the illusion of activity, with the intention they would be cancelled later after the pivotal measuring window was closed. Barclays has *admitted* similar conduct in the context of gold, specifically. As explained in Section VI.B. below, Barclays has admitted that it placed a large, fictitious order during the Fixing window despite having no intent to execute it. When the price did not move far enough to ensure the Fix was low enough for its liking, Barclays submitted a second order – which was later undone by way of an offsetting trade once the Fix was "safely" set to Barclays' liking.

155. *Fourth*, this manipulative behavior was even easier here than in the context of the Forex markets because Defendants had another layer of control by way of the purported Fixing "auction" itself. Defendants could coordinate trading activities prior to the Fixing window so as to cause prices to move in the desired direction – making it easier to achieve the desired result during the "auction."

156. But, at the end of the day, Defendants could also just place "auction" bids and quotes at prices during the PM Fixing regardless of what the true aggregate demands were that

[30] Foreign Exchange Trading at UBS AG: Investigation Conducted by FINMA (Nov. 12, 2014), at 12 (translation from German), *available (in German) at* www.finma.ch/e/aktuell/pages/mm-ubs-devisenhandel-20141112.aspx.

had been funneled to them or were on their order books – that is, they could still act to set the Fix where they wanted (particularly when acting in concert) even if their clients did not take the bait with respect to the manipulative trading practices occurring just prior to and during the Fixing process. Rather than participating in good faith, Defendants could simply submit aggregate "auction" "bids" that understated demand, particularly where doing so benefitted each bank's own proprietary positions even as it harmed the bank's clients.

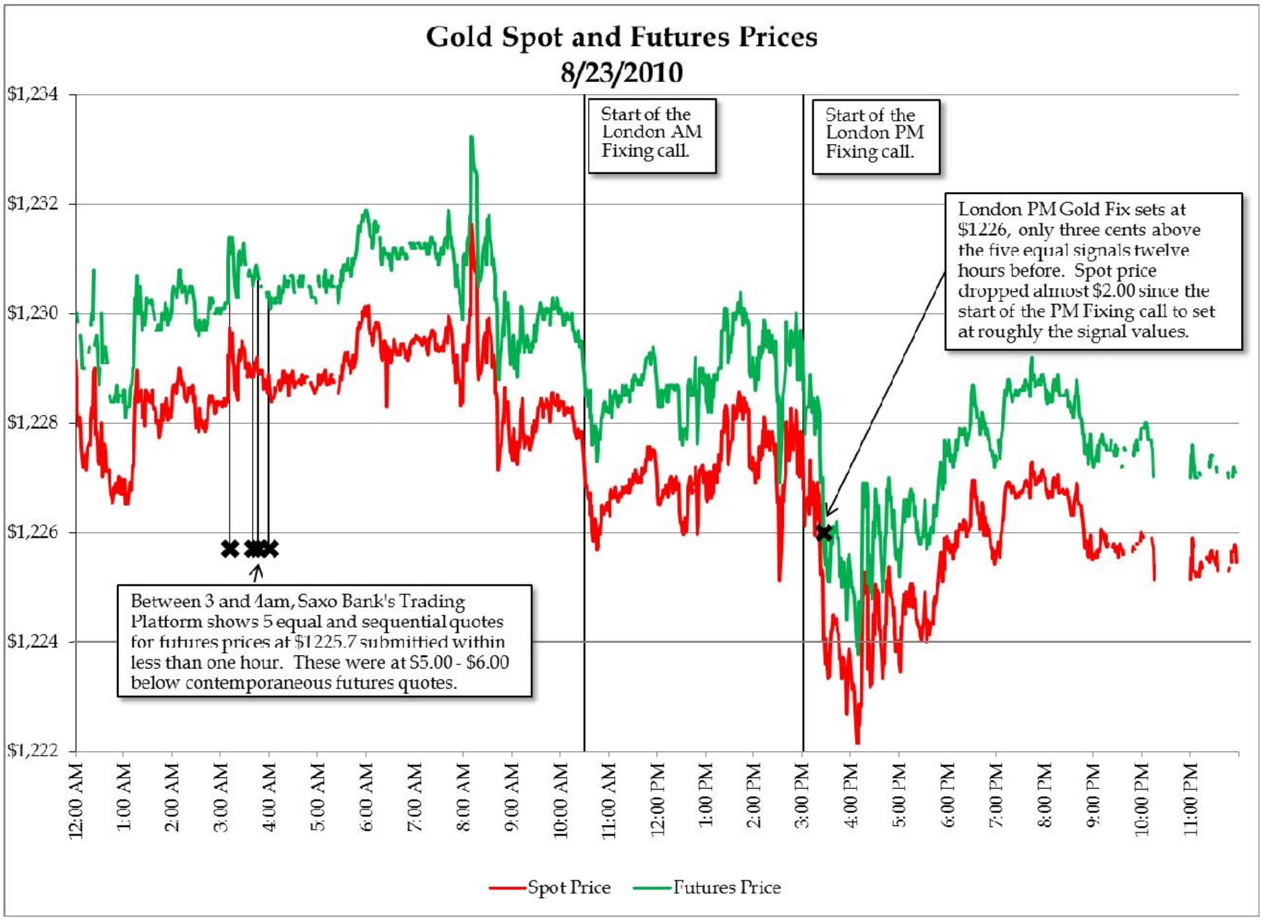
157. *Fifth* Defendants and other institutions used proprietary trading platforms to signal desired price levels for gold on multiple occasions. For example, on one such occasion on August 23, 2010, Saxo Bank's trading platform ("SaxoTrader") was used to coordinate setting the PM Fix for the same day.[31] While markets were relatively quiet between 3:00 and 4:00 a.m. London time, five sequential and identical quotes at $1225.70 for gold futures prices appeared in the Saxo Bank trading platform, but not on other electronic trading platforms, or on COMEX. These five prices were quotes for the trade of gold futures, which other users of the SaxoTrader platform could have chosen to accept.

158. However, the prices of the five quotes were isolated outliers when considered against prevailing market prices at that time – they were some $5 to $6 below the then current level of quotes for gold futures and actual prices. The quotes thus make little sense – except when seen as a signaling mechanism, whereby Defendants and co-conspirators indicated the price to which they intended to manipulate the Fixing.

159. Sure enough, about 12 hours later on the same day, the PM Fix was set at $1226, only three cents above the signaled quotes, and after an almost $2 drop in spot prices from the

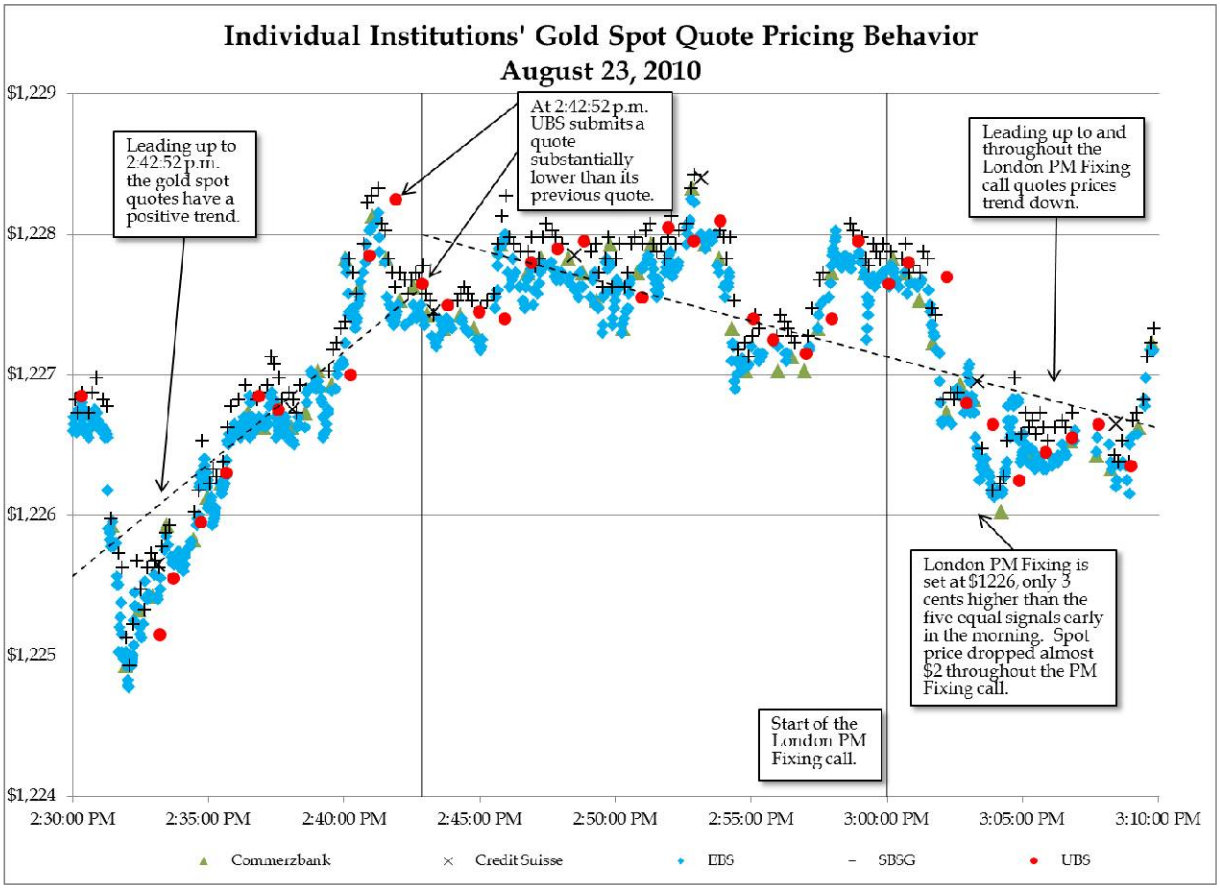
[31] Saxo Bank has its headquarters in Copenhagen. "SaxoTrader" is "multi-product online trading platform," an electronic platform that allows users to trade a large range of products, including various Gold Investments. *See* www.saxobank.com/trading-platforms/saxotrader.

beginning until the end of the PM Fixing call, as illustrated below.



160. How this PM Fixing at $1226 happened is illustrated in the chart below. On the same date, August 23, 2010, UBS and Erste Group Bank AG[32] were very active market participants driving downward pressure in spot prices around the PM Fixing towards the signaled value of $1226.

32 Erste Group Bank AG ("EBS") is an interdealer broker, and provides a Forex platform that is managed by ICAP.



161. The chart shows that several banks were participating in an upward trend of gold prices until just over 17 minutes before the PM Fixing on August 23, 2010. At that time, UBS and other banks submitted quotes substantially lower than the quotes they had submitted minutes earlier. This pattern occurred again just over 5 minutes before the commencement of the PM Fixing, with a further concerted drop in quotes during the course of the PM Fixing. The result of these lower quotes was to drive down prices such that the PM Fix was $1226 – two dollars lower than it had been at the start of the PM Fixing, and only three cents removed from the price signaled on Saxo Bank's trading platform some 12 hours earlier.

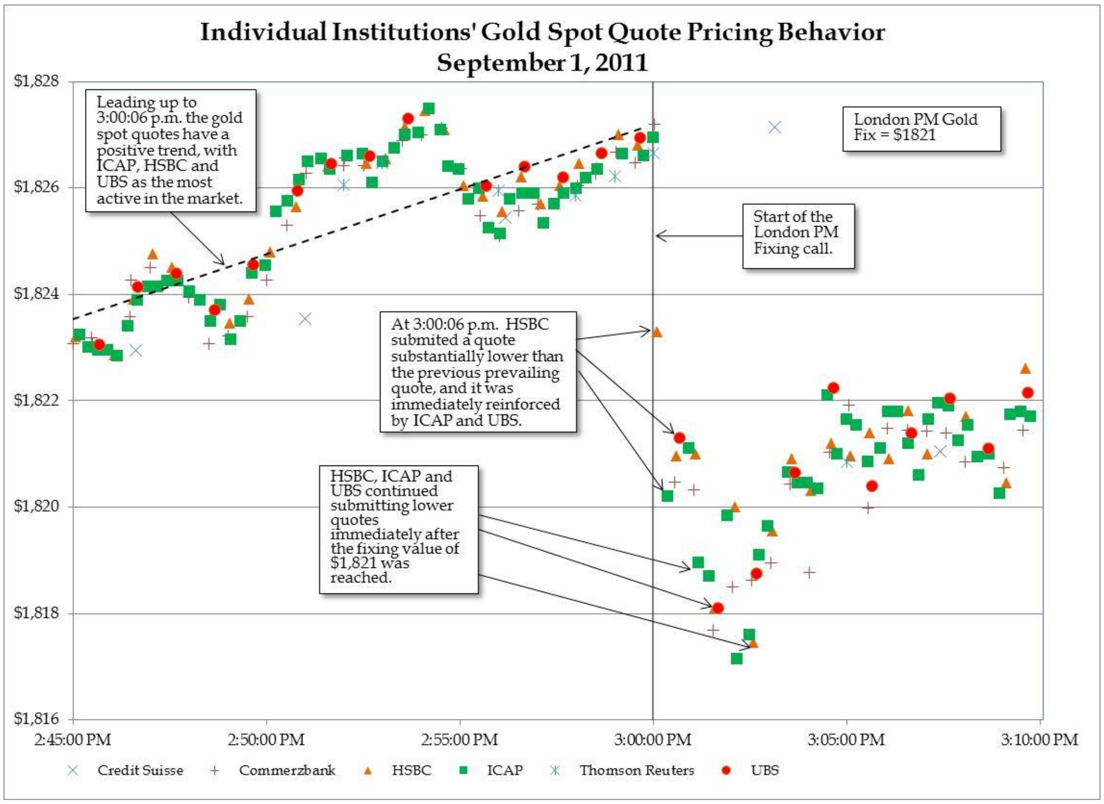
B. <u>Defendants' Manipulative Activities Impacted the Purported "Auction" Process</u>

162. Evidence of Defendants and their co-conspirators' collusive behavior can be seen in the example discussed above of first signaling the target level for the PM Fix, and then setting

the PM Fix at almost precisely that level. The examples discussed below provide further evidence of how Defendants and their co-conspirators manipulated gold prices for and around the Fixing window.

163. Comprehensive data is not publicly available, but the information that is available to Plaintiffs confirms that Defendants (often acting together with other bullion banks) were driving the movement in prices before and around the Fixing window, often accounting for large portions of the trading activity leading up to and during the Fixing window, opportunistically organizing activity to push the Fix in the desired direction before the Fixing process began.

164. For instance, in the below chart it can be seen that large quotes from Defendant HSBC – out of line with the prior pricing trend – triggered a downward spike in the price of gold from a market level of about $1826 before the Fixing window, to a fixed price of $1821.



165. The above chart – again, based on all available data – thus shows how at least one

Defendant, apparently working with ICAP[33] and UBS, was driving the downward spike in the spot market with below-market quotes, even as HSBC was supposed to be engaging in a good-faith auction within the Fixing process itself.

166. But these were not isolated episodes. Instead, they represent a common and systematic behavior by Defendants. Plaintiffs' expert consultants found the five fixing members' quoted prices were significantly lower than all other market participants' quoted prices around the PM Fixing. Specifically, from 2001 through 2012, the experts found that, on average, the quoted prices of fixing members were 0.7 basis points lower than that of the non-members, a persistent pattern throughout the entire period.

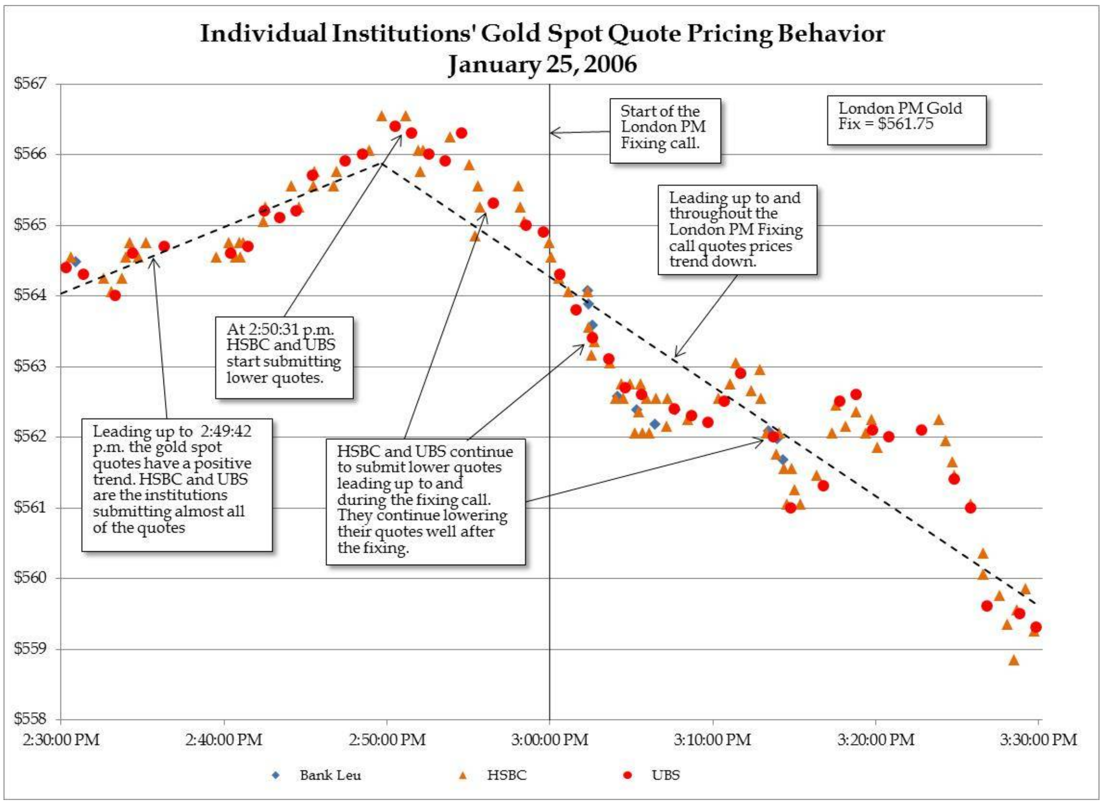
167. Note that certain quotes on the above chart attributed to ICAP, a London-based company that acts as a broker for firms that trade financial products. As ICAP is purely a broker, any quotes it submitted would have been submitted on behalf of (undisclosed) clients – meaning, they, too, may very well have been quotes being carried out on behalf of other Defendants here.

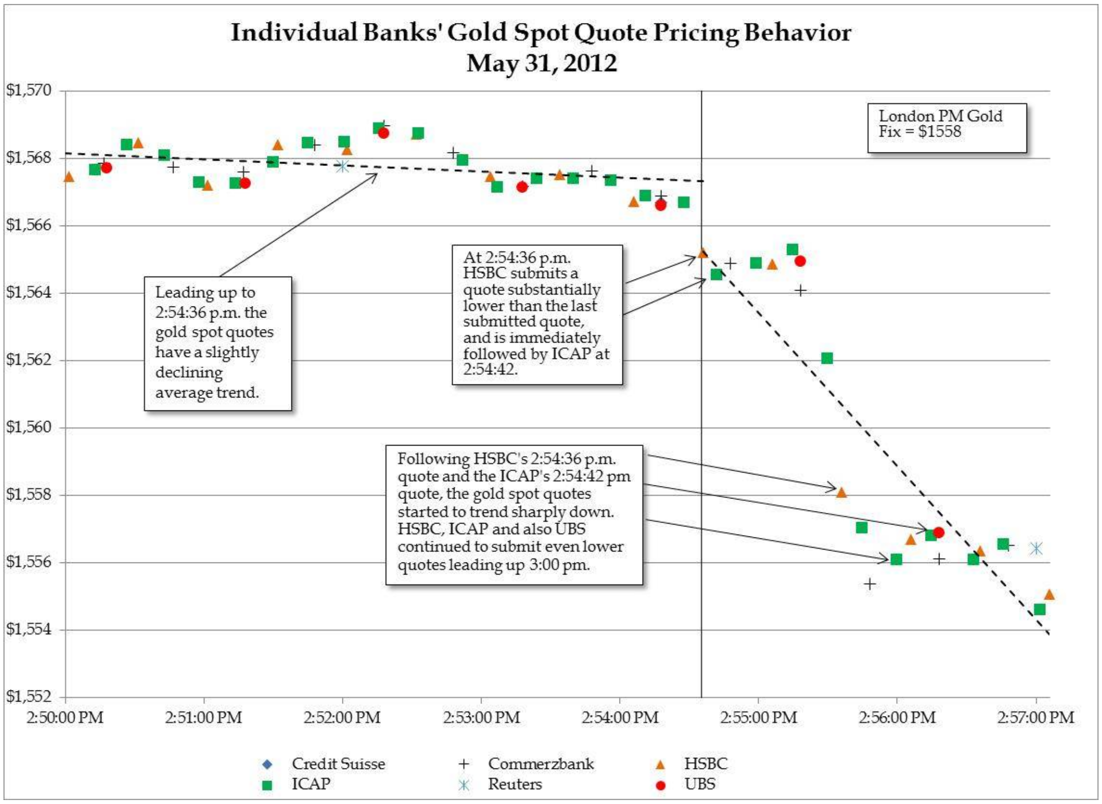
168. In addition to fixing members' average quotes being consistently lower than other market participants', since 2001 there is a noticeable dip in the ask prices of Defendants compared to the ask prices of non-fixing members following the start of the PM Fixing. This shows how Defendants moved first in pushing prices downwards during the PM Fixing. This

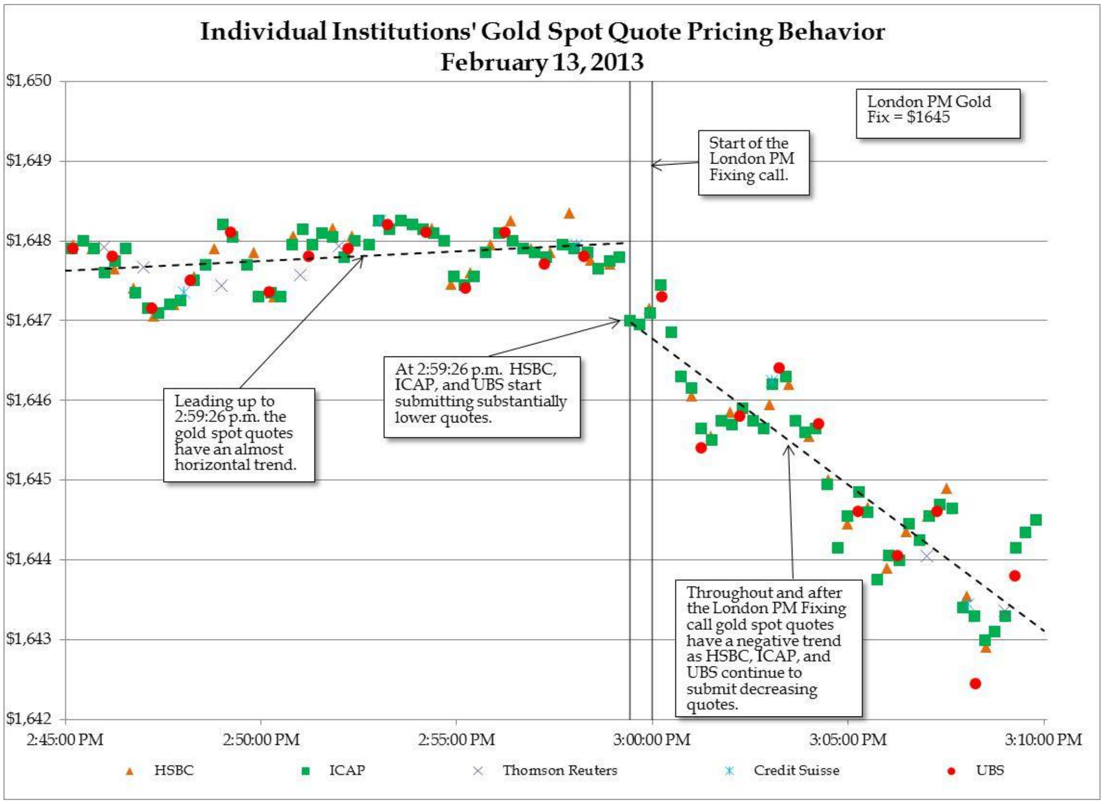
[33] In late 2013, United States and British authorities fined ICAP for its role in the global LIBOR interest rate rigging scandal. Numerous ICAP employees have faced criminal charges over the same conduct. *See, e.g.*, Kirstin Ridley, Clare Hutchison and Aruna Viswanatha, *ICAP fined $87 million over Libor, three former staff charged*, Reuters (Sept. 25, 2013), *available at* www.reuters.com/article/2013/09/25/us-icap-libor-idUSBRE98O0BX20130925 (noting that British regulators had determined that the relevant misconduct at ICAP was widespread). ICAP is the biggest broker of interest rate swaps between banks, and is currently also the subject of an investigation by the CFTC into its role in the possible manipulation of ISDAfix, a benchmark rate in the enormous market for interest rate swaps, which are used widely by corporations and governments alike, based on how it was willing to manipulate how and when quotes were (or were not) processed into the market. *See, e.g.*, Matthew Leising, Lindsay Fortado, and Jim Brunsden, *Meet ISDAfix, the Libor Scandal's Sequel*, Business Week (April 18, 2013), *available at* www.businessweek.com/articles/ 2013-04-18/meet-isdafix-the-libor-scandals-sequel.

behavior by Defendants also influenced other market players' perceptions driving them to lower their ask prices as well, thereby reinforcing Defendants' manipulative effect.

169. Examples of three additional days from the Class Period are charted below. As with September 1, 2011, the below charts graphically reveal a steep, uniform plunge in quote prices by Defendants – especially HSBC, in conjunction with ICAP and UBS – starting immediately prior to the initiation of the PM Fixing window.







170. Additional charts detailing individual quotes around the Fixing window can be

found in Appendix I. These charts show that prices not only moved down during the PM Fixing, but that prices also began to move down – often, contrary to trends occurring during the rest of the day – *before the Fixing process even began*. Both the movements observed prior to the commencement of the Fixing, and those documented in the early moments of the Fixing prior to its conclusion, constitute clear evidence of "front-running," *i.e.*, Defendants, with knowledge about what is going to happen at the Fixing, making trades in anticipation of its movement.[34]

C. Defendants Were Motivated to Manipulate the Market for Gold Due to Their Large "Short" Positions

171. Since approximately 2001, and increasingly since June 7, 2004 (when N.M. Rothschild left the Fixing and Defendant Barclays joined) until mid-2013, Defendants (and co-conspirators) jointly manipulated the PM Fixing in order to profit from the purchase of gold on the spot market and their short positions on the gold futures market. Defendants sought to avoid the uncertainties and risks associated with gold bullion trading and the gold derivatives market – *i.e.*, that the market will move against a Defendant's position – by collectively agreeing to manipulate the PM Fixing through repeated conduct to suppress the price of gold artificially.

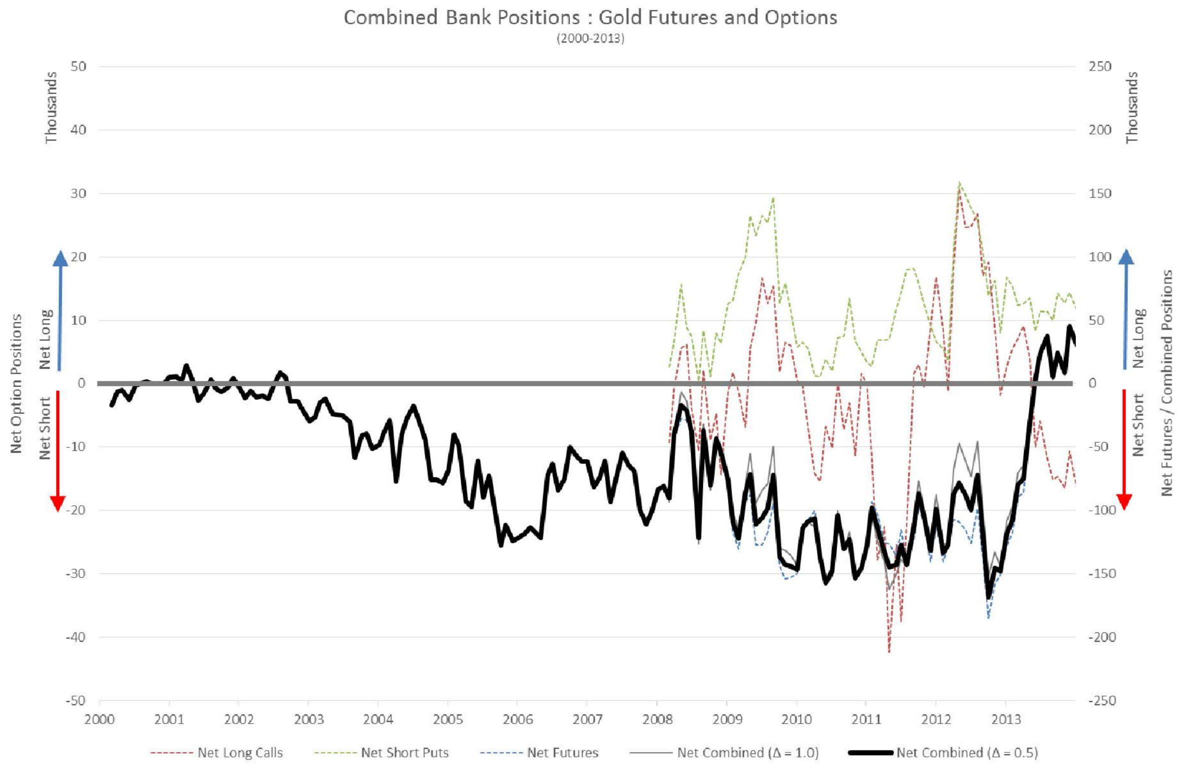
172. Defendants trade in the physical gold market and in the market for gold derivatives on their own behalf. Defendants and other dealer banks have "large-scale proprietary trading activities" in the futures and over-the-counter markets which "have contributed to the downward trend in gold prices during the past couple of years."[35]

173. It is impossible prior to discovery to quantify each individual Defendant's short positions in the futures and over-the-counter markets because neither they nor the CFTC publish this data, but on information and belief, each Defendant had a significant net short gold position

[34] *See* Caminschi and Heaney, *Fixing a Leaky Fixing*, J. FUTURES MARKETS at 2-3, 8-36.

[35] Jeffrey Nichols, *The Volcker Rule – Good for Gold*, Rosland Capital (Dec. 12, 2013), *available at* www.roslandcapital.com/news/the-volcker-rule-good-for-gold.

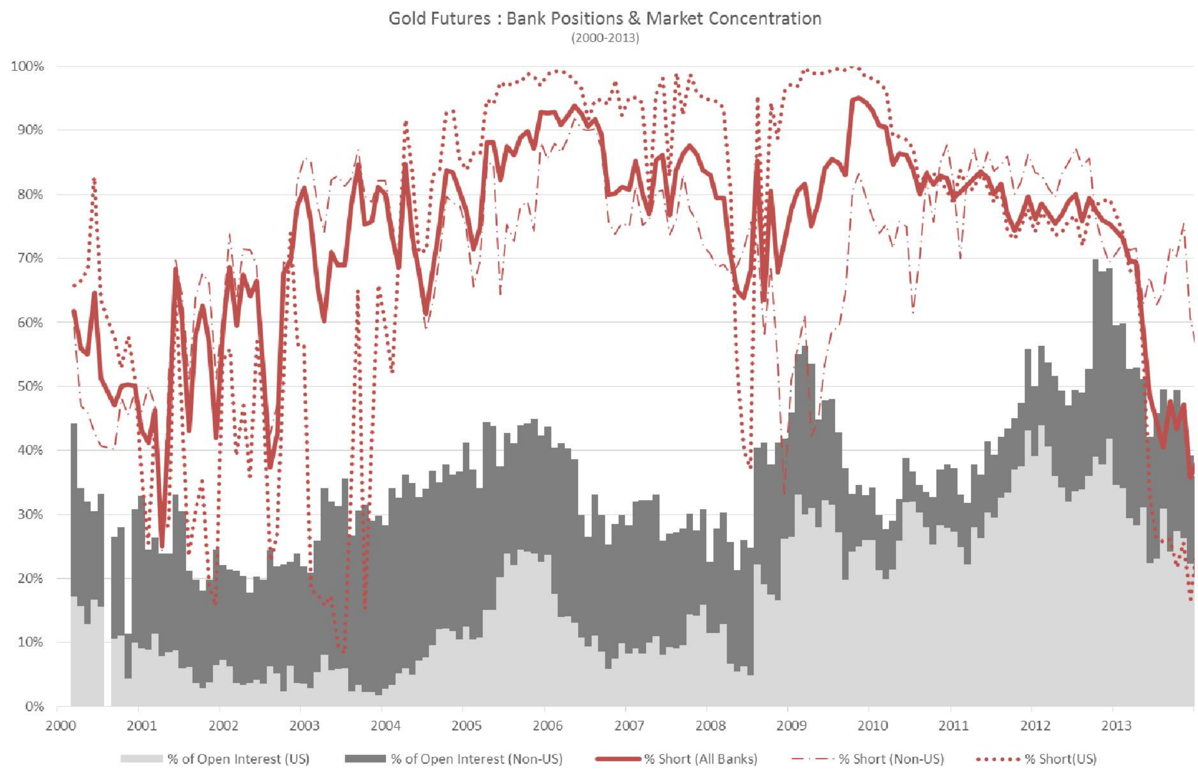
during all or most of the Class Period. Utilizing data from CFTC reports, the following chart shows (the thick black line) that when the bullion banks' calls, puts, and net futures are combined, the banks overall were net "short" throughout the Class Period based on their positions in exchange-traded gold futures and options – *i.e.*, they had an interest in suppressing the price of gold throughout the Class Period.[36]

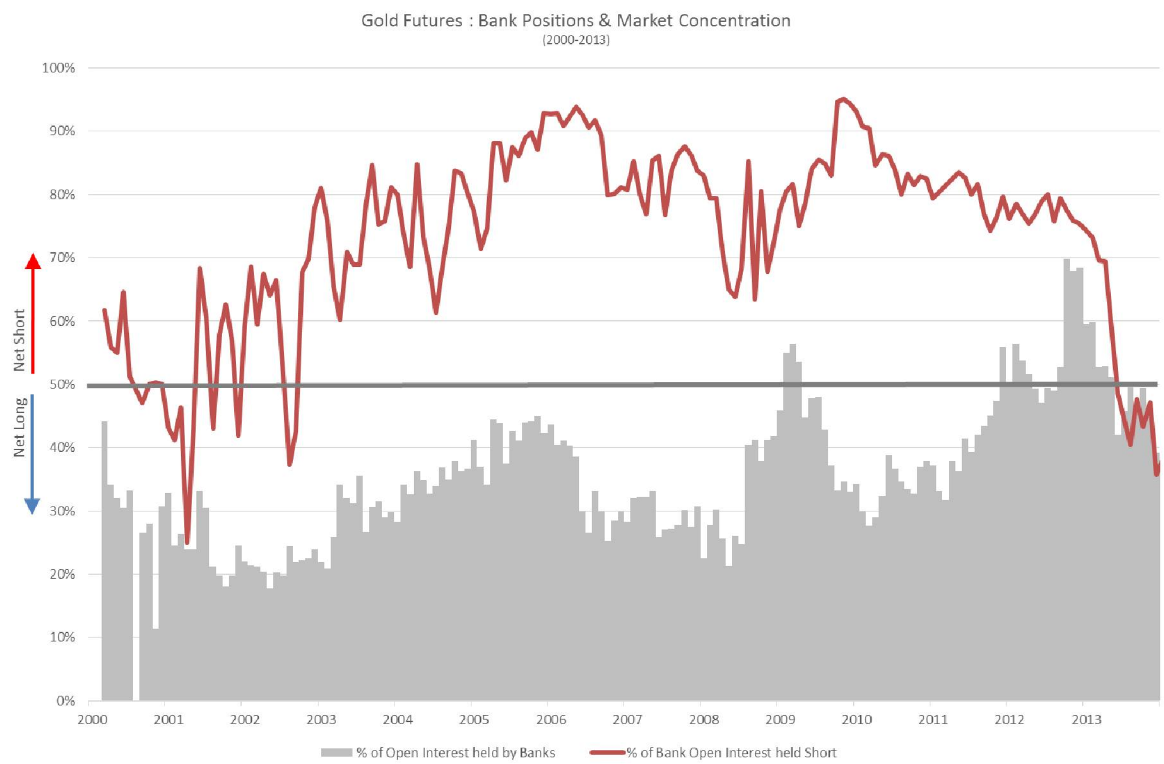


174. The following chart breaks out the CFTC data by U.S. and non-U.S. banks. It shows that foreign and domestic banks (comprised largely of Defendants and other LBMA banks) were "net short" during the Class Period. Note that here, the "net short" position is presented as being *above* the 50% line, unlike in the preceding chart. As with the combined analysis above, both foreign and domestic banks are seen as being "net short" throughout the Class Period. The gray area below the line indicates the percent of overall open interest held by

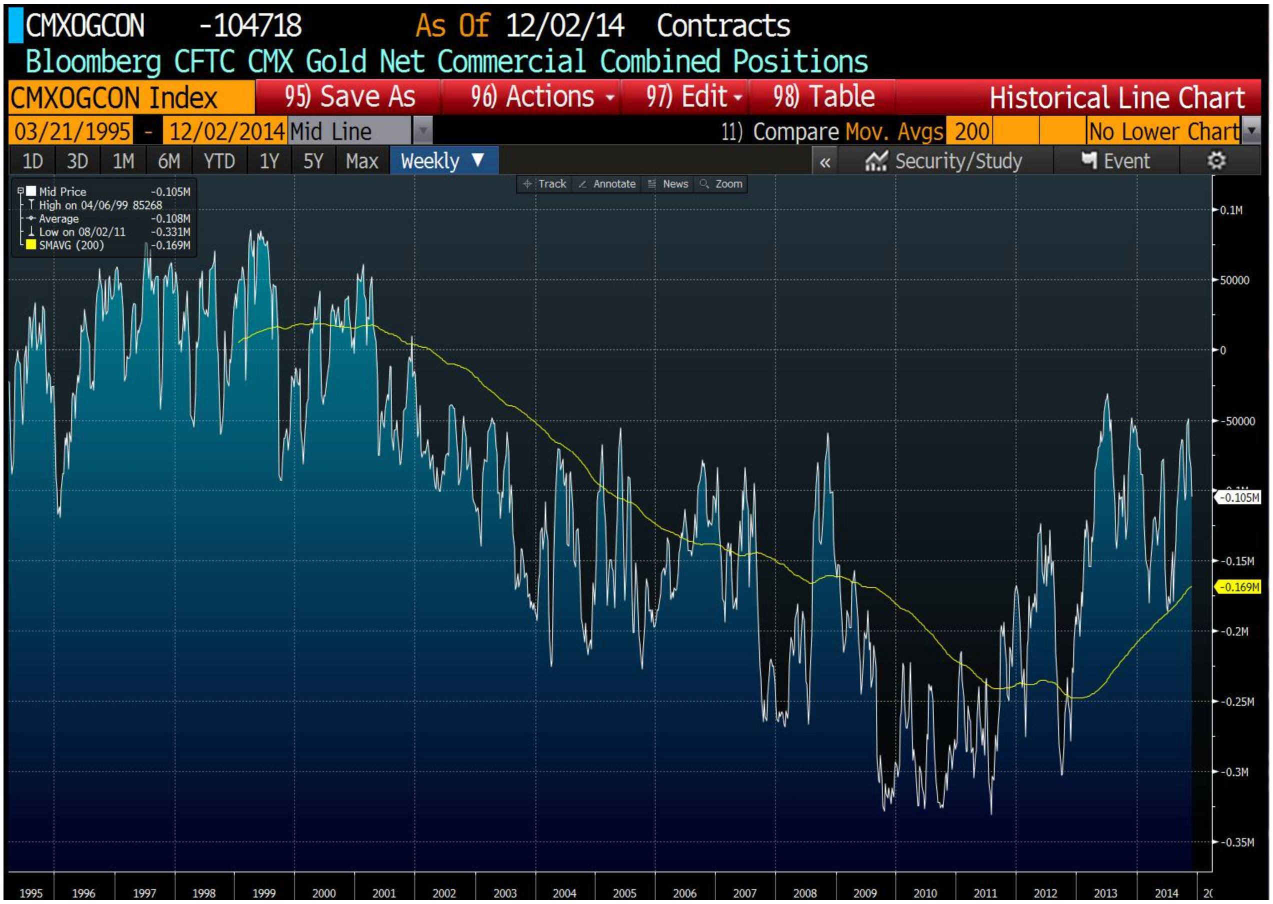
[36] The data in this chart is drawn from the CFTC's Bank Participation Reports.

the banks. Notably, banks (including Defendants here) combined had about 40% of the open interest in gold in the entire worldwide market. The second chart displays some of the same information, highlighting the percentage of open interest held by banks and the percentage of open interest held short by banks (with the 50th percentile emphasized).





175. As noted above, throughout the Class Period, Defendants, and other members of the LBMA, have maintained large "short" positions on the COMEX, and in their other "hedge" books, which reflected commitments to sell gold bullion to clients, customers, and others. The chart below is a Bloomberg screen page that illustrates COMEX Net Commercials Combined Positions, from 1995 to 2014. The represented positions are comprised largely of the positions of the Defendants and other LBMA banks. It shows there was a large net short position throughout the Class Period for Commericals.



176. A short position on the COMEX or a bank's hedge book is an undertaking to deliver gold to a buyer for deferred, or, less commonly, immediate delivery. If a bank is "short" in its hedge book or COMEX position, that bank will profit (or lose less) if the gold bullion price declines.

177. A single COMEX short position is 100 ounces of gold, or over 3 pounds of gold. Six Hundred Sixty-Seven (667) short positions is over a ton of gold and Seven Hundred Thirty-Four (734) short positions is over a metric ton of gold. Defendants and other LBMA members have often carried COMEX short positions of *hundreds of thousands of contracts* during the Class Period, or the equivalent of 150-500 tons of gold. Because a single ounce of gold currently sells for approximately $1200, 150-500 tons of gold is an enormous quantity which exceeds the gold reserves of central banks of all but the world's wealthiest nations. This has provided a

powerful motivation for the Defendants and co-conspirators to work to depress the price of gold over long periods of time, and the PM Fixing has been a major part of their efforts to engineer prices for gold bullion lower than they would have been without manipulation.

178. By maneuvering the London Gold Fixing, particularly the PM Fixing, towards lower prices over time, Defendants and co-conspirator LBMA members have worked throughout the entire Class Period to effect lower prices for gold bullion than would otherwise have prevailed in a free and openly competitive market.

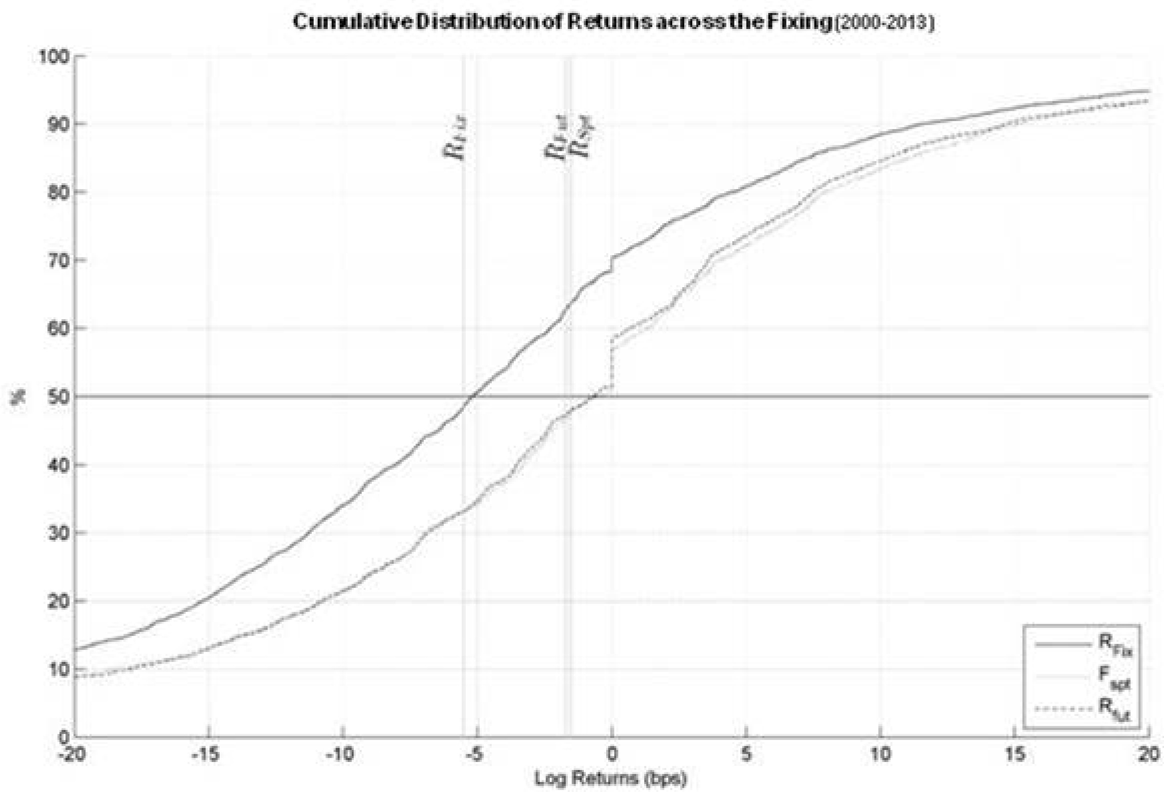
179. Defendants were motivated to engage in coordinated manipulation of the PM Fixing by the strong financial incentive created by their large "short" positions on the COMEX. A comparison of the banks' net positions with the direction of the Fix, which Defendants controlled, finds that the direction of the Fix is much more strongly correlated with the banks' net position than it is with the overall direction of the market on a given day. Plaintiffs' expert consultants' tests found this to be true to a statistically significant degree.

180. A comparison of the distribution of returns on gold futures contracts at the Fixing with the distribution of returns on spot and future transactions traded at other times of day reveals a significant difference between these distributions, also suggesting a motive for manipulation – one that has proved irresistible to banks in many similar contexts.

181. As illustrated in the following chart, open market returns on gold futures (shown by the line "Rfut") and spot gold (shown by the line "Fspt") are near identically distributed.[37] That is – they experience positive and negative returns (shown on the x-axis, in basis points) on an equal number of occasions (shown on the y-axis in percentages). By contrast, returns from the PM Fixing (shown by the line "Rfix") are heavily skewed to negative, with approximately

[37] These "returns" measure the relative price changes measures from the start to the end of the Fixing.

67% of PM Fixing's returns being negative, and only approximately 30% being positive.



182. The alignment of anomalous price movements and Defendants' economic motivations to manipulate the PM Fixing is confirmed by the fact that price spikes suspiciously occurred *even more frequently* on days that would impact futures contracts the most. The most active contract months for gold futures on the COMEX are February, April, June, August and December. The last trading day of these months are when contracts expire and represent the opportunity to "roll" futures positions, *i.e.*, to move expiring positions during the current month into new contracts in the following month, based on the prices on the last trading day.

183. Analyzing spot pricing patterns around the PM Fixing during the last trading day for each relevant month from 2001 through to mid 2013 reveals a high rate of anomalous price movements. Expert analysis reveals that about half of the "last tradable days" present highly unusual downward price movements around the PM Fixing during the Class Period, likely

designed to drive prices downwards, including futures prices, in order to benefit Defendants' rolling positions. That anomalous price movements are exhibited at a high rate on the days when Defendants would be *even more* motivated to engage in manipulation, is further evidence the downward spikes were generated by market manipulation.

184. As seen in investigations into other similar benchmarks, Defendants were also motivated to trigger – or avoid triggering – "stop loss" orders and "margin calls" for their own benefit. A stop-loss order is a specified level at which a financial product (or commodity) should be sold to limit potential losses. Clients place stop-loss orders with entities such as Defendants to help manage the risk arising from movements in gold prices. By accepting these orders, Defendants agreed to transact with the client at a specified price if the gold benchmark reached that price.

185. A margin call is a demand from a broker to an investor to deposit additional funds or securities so that the investor's margin account is raised to a certain level. Margin calls are made when the funds or securities in an investor's margin account need to be raised because they have fallen below a certain level calculated by the broker as being necessary to cover potential losses. By manipulating the PM Fixing, Defendants frequently were able to trigger (or avoid triggering) such orders, avoiding much of the risk in such obligations. Defendants were also able to make margin calls that otherwise would not have been made.

D. <u>Defendants Manipulative Conduct Caused Sustained Price Suppression of Gold Prices</u>

186. As the economic evidence shows, Defendants' manipulative conduct to suppress gold prices around the PM Fixing caused prices to be artificially lower throughout the Class Period than if set by free and open competition. This evidence includes the facts that:

a. Prices dropped during the PM Fixing many more times than they increased during

every year in the Class Period;

b. The PM Fixing prices were among the lowest spot prices of the day much more often than they were among the highest spot prices of the day during every year in the Class Period;

c. Defendants' quoted prices were significantly lower than those of other market participants around the PM Fixing call for every year in the Class Period;

d. Defendants' ask prices were the first to drop as the PM Fixing call started for every year in the Class Period;

e. There was a significantly large drop of average prices around the PM Fixing, which is not only due to episodic manipulation but also reflects the sustained price suppression outlined above;

f. For every year in the Class Period, average price changes during the PM Fixing were sustainably negative at the same time that average price changes throughout the day were sustainably positive; and

g. Defendants had the motive to sustainably suppress prices throughout the Class Period in order to benefit their systematic short positions.

187. As a consequence, the harm suffered by plaintiffs is not restricted to those specific days on which the most striking downward price drops occurred during the PM Fixing, but instead extends throughout the Class Period.

V. NUMEROUS PLUS FACTORS ARE PROBATIVE OF COLLUSION IN CONNECTION WITH THE LONDON GOLD FIXING

188. The structural design of the London Gold Fixing is a perfect storm of features that invite and promote manipulation and collusion, allowing such behavior to go unnoticed until 2013.

189. *First*, the London Gold Fixing is a *direct exchange of intended or future price information* among horizontal competitors. This is over and above the sharing of information *before* the Fixing, as confirmed by investigations such as that done by FINMA. Defendants compete across a wide range of financial services markets, including the markets for gold and gold derivatives. Defendants compete to attract customers, including those that trade gold, gold futures and options, gold derivatives, and shares of Gold ETFs and they compete against each other in the proprietary trading of gold. Despite the fact that they are competitors, Defendants communicate directly and privately through the London Gold Fixing – and even before – to set the price of gold. Through this exchange of price impacting information, Defendants have ample opportunity to signal pricing desires to their competitors, and even to directly decide what the Fix will be.

190. *Second,* this exchange of pricing information takes place among a *very small group of competitors* with large market shares in the markets for gold, gold futures and options, and gold derivatives. Unlike a benchmark price based on market-wide data, the London Gold Fixing vests control over the price-setting process in the hands of a small group of competitors, making it easy for them to influence prices. This structure makes collusion a rational strategy for increasing profits at the expense of the vast majority of the market that does not have the opportunity to set the spot price.

191. *Third*, the banks' communications with each other – such as the sharing of client orders and imminent orders – represent *undisclosed* communications, meaning Defendants have *access to nonpublic, real time information* about changes in the price of gold. As Thomas Polleit, a former economist at Barclays, commented, "Traders involved in this price-determining process have knowledge which, even for a short time, is superior to other people's knowledge.

That is the great flaw of the London gold-fixing."[38] This access to non-public information not only presents Defendants with unique informational advantages in the markets for Gold Investments, as detailed below, but it also means the markets cannot monitor Defendants' conduct in setting the price of gold.

192. *Fourth*, Defendants have a *direct financial interest in the outcome* of the London Gold Fixing. Defendants are not neutral participants in the Fixing process: they are traders of gold on the spot market and during the Class Period they had large short futures positions on COMEX. As a result, they have a large incentive to influence the price of the Fixing in a particular direction.

193. *Fifth*, the structure of the Fixing means that Defendants are *easily able to detect – and if necessary, retaliate against – defectors:* all Defendants will know if any other Defendant attempts to "break the cartel" because all Defendants are aware of the net demand represented by other Defendants during the fixing process, and of how that representation will affect the Fix that Defendants agreed to that day. Because the Fixing occurs twice daily, if any one Defendant selfishly deviates from a pre-agreed level of net demand during the Fixing (*i.e.*, represents a level of demand that would have the effect of moving the Fix other than toward the agreed artificial price), other Defendants have ample opportunity to extract revenge.

194. *Sixth*, until recently (following the launch of the investigations discussed above) there was *no independent administration or oversight* of the Fixing. Unlike other benchmarks that are administered by third parties, which compile quotes or use real-time data, the Fixing involves a telephone call among the Defendants themselves, which is not overseen by any

[38] Liam Vaughan, Nicholas Larkin & Suzi Ring, *London Gold Fix Calls Draw Scrutiny Amid Heavy Trading*, Bloomberg (Nov. 26, 2013), *available at* www.bloomberg.com/news/2013-11-26/gold-fix-drawing-scrutiny-amid-knowledge-tied-to-eruption.html.

independent entity. No one was charged with monitoring the Fixing process and guarding against manipulation or ensuring that information was not misused. For a long time, even the Defendant fixing members themselves did not record what trades they submitted during the Fixing.[39] Only recently – and after widespread calls for reform starting in 2013, and reinforced following discovery of Defendant Barclays' manipulation – did the LGMF adopt a "Conflict of Interest Policy" and resolve to appoint a "Supervisory Committee" tasked with implementation and enforcement of a "Submitter Code of Conduct," and with review of the Fixing process.[40]

195. Regarding Defendant Barclays, a recent regulatory investigation concluded that "Precious Metals Desk staff had not been given adequate training or guidance regarding what they were, or were not, permitted to do during the Gold Fixing." They were given no guidance "on the circumstances in which they were or were not allowed to participate in the Gold Fixing and the circumstances in which they were or were not allowed to place proprietary trades whilst the Gold Fixing was taking place."[41] Likewise, at all relevant times there was no oversight whatsoever over the Fixing's activities by any United Kingdom or foreign regulatory agency. It was not until November 2014 that the LBMA appointed a third party administrator to manage the Fixing process.

196. Collectively, these structural or "plus" factors created a situation where collusion was most likely to occur, including because – until recently – there were no negative

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[39] In the case of Defendant Barclays, such recording did not commence until well after the mid-2012 manipulation of the Fixing that was subsequently uncovered. *See* U.K. Financial Conduct Authority, *Final Notice to Barclays Bank plc* (May 23, 2014), at 4.36 ("Barclays' systems and reports also did not formally record orders placed by traders in the Gold Fixing until 5 February 2013. In addition, Barclays relied upon systems and reports that did not differentiate between Gold Fixing and gold spot market trades executed by its traders.").

[40] *See* "Conflicts of Interest Policy" and "Terms of Reference for the Supervisory Committee," *available at* www.goldfixing.com/policy-documentation.

[41] U.K. Financial Conduct Authority, *Final Notice to Barclays Bank plc* (May 23, 2014), at 4.31.

consequences to Defendants and their co-conspirators' decision to collude as competitors and thereby to manipulate the London Gold Fixing – only rewards. For good reasons, no other benchmark price involves such unrestricted, direct price-setting among horizontal competitors. The United States Senate captured the crux of the issue when it stated that commodity activities such as those at issue here were "permeate[d]" by "conflicts of interest."[42] As alleged herein, Defendants seized upon this structure to manipulate the price of gold in secret without fear of retribution until very recently.

VI. ONGOING GOVERNMENT INVESTIGATIONS CORROBORATE PLAINTIFFS' ALLEGATIONS

A. Multiple Investigations Are Underway Worldwide

197. The CFTC, U.K. Financial Conduct Authority, and the German financial regulator BaFin have launched probes into the London Gold Fixing. Much of the collusive, manipulative conduct described above has been confirmed by government regulators both domestically and abroad.

198. BaFin has interviewed employees of Defendant Deutsche Bank concerning potential manipulation. Officials have also visited Deutsche Bank offices and requested emails and documents. BaFin president Elke Koenig stated publicly on January 16, 2014 that allegations concerning the market for precious metals are "particularly serious because such reference values are based – unlike LIBOR and Euribor – typically on transactions in liquid markets and not on estimates of the banks."[43] The day after Koenig's remarks, *Bloomberg*

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[42] United States Senate Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, *Wall Street Bank Involvement with Physical Commodities* ("Senate Report") (Nov. 18, 2014) at 38, *available at* www.hsgac.senate.gov/download/report-wall-street-involvement-with-physical-commodities.

[43] Karin Matussek and Oliver Suess, *Metals, Currency Rigging is Worse Than Libor, Bafin says*, Bloomberg (Jan. 17, 2014), *available at* www.bloomberg.com/news/2014-01-16/metals-currency-rigging-worse-than-libor-bafin-s-koenig-says.html.

reported that Deutsche Bank had decided to sell its memberships in both the gold and silver fixes.[44]

199. Both Deutsche Bank and Barclays are reportedly conducting internal investigations into their roles in the improper manipulation of the London Gold Fixing. Defendants also formed a steering committee to identify firms to advise on "how the process [of the Gold Fixing] could be improved."[45] The CEO of Defendant BNS has called for an overhaul of the London Gold Fixing, stating that the "fix is dated" and it "should be reviewed[.]"[46] Joaquin Almunia, the European Union's antitrust chief, is also reported to be conducting a preliminary probe into "possible foreign-exchange manipulation"[47] (which includes gold and silver as they are considered "currencies"), with Mr. Almunia commenting to the *Financial Times* that "perhaps manipulation [of benchmarks] is not the exception but the rule."[48]

200. Switzerland's financial regulator FINMA has found "serious misconduct" by

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[44] Maria Kolesnikova and Nicholas Larkin, *Deutsche Bank Withdraws from Gold Fixing in Commodities Cuts*, Bloomberg (Jan. 17, 2014), *available at* www.bloomberg.com/news/2014-01-17/deutsche-bank-withdraws-from-gold-fixing-in-commodities-cutback.html. Deutsche Bank ultimately resigned from the Fixing without a replacement because it was unable to sell its seat.

[45] Suzi Rig, Liam Vaughan & Nicholas Larkin, *Century-Old London Gold Benchmark Fix Said to Face Overhaul*, Bloomberg (Jan. 21, 2014), *available at* www.bloomberg.com/news/2014-01-21/century-old-london-gold-fix-said-to-face-overhaul-amid-scrutiny.html.

[46] Sarah Jacob, *Scotiabank CEO Porter Says 'Dated Gold Fix Needs Review*, Bloomberg (Mar. 5, 2014), *available at* www.bloomberg.com/news/2014-03-05/scotiabank-ceo-porter-says-dated-gold-fix-should-be-reviewed.html.

[47] Karin Matussek and Oliver Suess, *Metals, Currency Rigging is Worse Than Libor, Bafin says*, Bloomberg (Jan. 17, 2014), *available at* www.bloomberg.com/news/2014-01-16/metals-currency-rigging-worse-than-libor-bafin-s-koenig-says.html.

[48] Daniel Schäfer, Neil Hume and Xan Rice, *Barclays fined £26m for trader's gold rigging*, Financial Times (May 23, 2014), *available at* www.ft.com/cms/s/0/08cafa70-e24f-11e3-a829-00144feabdc0.html.

UBS in precious metal trading.[49] Indeed, FINMA's chief executive officer recently stated that the regulator has "seen clear attempts to manipulate fixes in the precious metals markets."[50]

201. A recent report by the United States Senate Permanent Subcommittee on Investigations documented conduct strikingly similar to that alleged by Plaintiffs across a wide range of commodities. It noted that across the activities investigated, "financial companies often traded in both the physical and financial markets at the same time, with respect to the same commodities, frequently using the same traders on the same trading desk. In some cases, after purchasing a physical commodity business, the financial holding company ramped up its financial trading. . . . In some cases, financial holding companies used their physical commodity activities to influence or even manipulate commodity prices."[51]

202. Another problem the Senate Report focused on was the "conflicts of interest between a bank and its clients" when banks mix the business of banking with commerce. The report found that "[p]ossible conflicts of interest permeate virtually every type of commodity activity" and illustrated the point thus: "If the bank's affiliate operates a commodity-based exchange traded fund backed by gold, the bank may ask the affiliate to release some of the gold into the marketplace and lower gold prices, so that the bank can profit from a short position in gold futures or swaps, even if some clients hold long positions."[52]

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[49] FINMA, Press Release: FINMA sanctions foreign exchange manipulation at UBS (Nov. 12, 2014), *available at* www.finma.ch/e/aktuell/pages/mm-ubs-devisenhandel-20141112.aspx.

[50] Nicholas Larkin and Elena Logutenkova, *UBS Precious Metals Misconduct Found by Finma in FX Probe*, Bloomberg (Nov. 12, 2014), *available at* www.bloomberg.com/news/2014-11-12/finma-s-ubs-foreign-exchange-settlement-includes-precious-metals.html.

[51] Senate Report, at 5.

[52] *Id.* at 37-38. Similarly, each of the case studies documented in the Senate Report uncovered evidence that banks "used their physical commodity activities to gain access to commercially valuable nonpublic information that could be used to benefit their financial trading activities." *Id.* at 6.

B. Barclays Has Admitted to Manipulating the Fixing, Using the Very Methods Alleged Here

203. The U.K. Financial Conduct Authority recently concluded an investigation into the actions of Barclays' Precious Metals Desk, finding that the bank's conduct violated several of the FCA's "Principles of Business," starting from the time Barclays joined the Gold Fixing in 2004. In particular, the FCA found that "Barclays failed to: (i) create or implement adequate policies or procedures to properly manage the way in which Barclays' traders participated in the Gold Fixing; (ii) provide adequate specific training to Precious Metals Desk staff in relation to their participation in the Gold Fixing; and (iii) create systems and reports that allowed for adequate monitoring of traders' activity in connection with the Gold Fixing."[53]

204. As a result of these failures, "Barclays was unable to adequately monitor what trades its traders were executing in the Gold Fixing or whether those traders may have been placing orders to affect inappropriately the price of gold in the Gold Fixing." These failures were deemed "particularly serious given the importance of the Gold Fixing as a price-setting mechanism which . . . provides market users with an opportunity to buy and sell gold at a single quoted price; therefore, any inappropriate conduct in the Gold Fixing could affect both UK and international financial markets."

205. Barclays was also found to have failed "to adequately manage certain conflicts of interest between itself and its customers." In particular, Barclays failed to adequately manage the inherent conflict of interest that existed from (i) Barclays participating in the Gold Fixing and contributing to the price fixed during the Gold Fixing, while at the same time also (ii) selling to customers options products that referenced, and were dependent on, the price of gold fixed in the Gold Fixing.

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[53] U.K. Financial Conduct Authority, *Final Notice to Barclays Bank plc* (May 23, 2014) at 2.3.

206. The investigation detailed one such instance of these conflicts of interest getting the better of Barclays. Specifically, Barclays' Precious Metals Desk intentionally drove down the Fix price of gold below a certain level so as to avoid the payment it would have had to make to a customer pursuant to a digital option contract.[54]

207. On the evening of June 27, 2012, Barclays trader Daniel Plunkett emailed other members of Barclays' Commodities business area summarizing Barclay's $3.9 million exposure to a customer on a digital option. That contract referenced the June 28, 2012 PM Fixing, and Barclays would be required to pay the customer $3.9 million if the PM Fix was higher than $1,558.96. In his email, Mr. Plunkett stated he was hoping for "a mini puke to 1558 for fixing" (*i.e.*, a small downward spike in the price) at 3 p.m. the next day. In a follow-up email to a colleague the next morning he repeated this sentiment, stating "hopefully we fix 1558, or 1558.75 ideal."[55]

208. Plunkett sought to ensure that the desired "mini puke" occurred by placing a large, fictitious order he did not intend to execute in connection with the Gold Fixing. When the desired price plunge did not last as long as he needed it to, he placed a sell order.[56] After the PM Fixing was concluded, he entered into a trade designed to unwind the sale. The $114,000 loss on the sale was more than outweighed by not having to pay $3.9 million on the digital option.

209. To repeat, Barclays placed two orders (one was not subsequently executed, the

[54] The kind of a digital option (also sometimes referred to simply as a "digital") at issue had only two potential values: a fixed payout to the customer if the option finished "in the money" (*i.e.*, the price exceed the specific barrier price), or no payout if the option finished "out of the money" (*i.e.*, the price was at or below the specific barrier price).

[55] U.K. Financial Conduct Authority, *Final Notice to Barclays Bank plc* (May 23, 2014) at 4.12. The price in the 3:00 p.m. 27 June 2012 Gold Fixing had fixed at $1,573.50 and COMEX Gold futures were trading at approximately $1,577.50 at the time of Mr. Plunkett's June 27 email.

[56] *Id.* at 4.14 – 4.24.

other was quickly reversed) with the purpose of driving that day's Fix below $1,558.96, the threshold above which Barclays would be required to pay its customer on an option contract.

210. The price movements on the day of Barclays' admitted manipulation are illustrated below. Again, this chart represents the market price on a day on which one of the Fixing banks has *admitted it manipulated the price of gold*. Notably, the above discussion in this complaint and extensive analysis presented in the appendices reveal remarkably similar dynamics on days where manipulation is under investigation (but not yet admitted).

211. The first sharp decrease, at the start of the Fixing, is indicative of Barclays overstating the amount of sell orders on its book in order to force the price downwards. As this information hit the market, prices fell. There was then a temporary price recovery before a second sharp decline in prices. This second decline represents Barclays' effort to set the Fix below the barrier set in the digital option contract, which it did by $0.46 (that day's Fix was $1,558.50, below the option price of $1,558.96), thus saving itself (and depriving its customer

of) $3.9 million.

212. The Barclays manipulation was not an isolated event. Former precious metals traders interviewed by the press have stated that "there has long been an understanding among [bullion banks] that sellers and buyers of digitals would try to protect their positions if the benchmark price and barrier were close together near expiry."[57] In fact, one trader interviewed expressed "sympathy" for the Barclays trader who was punished because it used to be the case that a trader would have been "censured by his bosses if he had *not* defended the digital option sold by the bank."

213. This message was reiterated elsewhere. Four traders interviewed by *Bloomberg News* said that it was "common practice" among gold bullion banks to move prices to profit or limit losses from barrier options of the kind involved in the Barclays scenario.[58]

214. Both "spoofing" and "wash sales" are explicitly prohibited by and considered to be disruptive practices under the Commodity Exchange Act.[59] "Spoofing" of the gold market recently led the CFTC to impose civil penalties upon a gold trader in the U.S.[60] with the U.S. Justice Department subsequently filing a criminal indictment in respect of the same conduct.[61] The Chicago Mercantile Exchange Inc. ("CME"), The Board of Trade of the City of Chicago,

[57] Xan Rice, *Trading to influence gold price fix was 'routine,'* Financial Times (June 3, 2014), *available at* www.ft.com/intl/cms/s/0/7fd97990-eb08-11e3-9c8b-00144feabdc0.html.

[58] Dave Michaels, Suzi Ring and Julia Verlaine, *Barclays Fine Spurs U.K. Scrutiny of Derivatives Conflict*, Bloomberg (June 5, 2014), *available at* www.bloomberg.com/news/2014-06-05/barclays-fine-leads-to-new-u-k-scrutiny-of-derivatives-conflict.html.

[59] *See* 7 U.S.C. § 6c(a)(5).

[60] Press Release, *CFTC Orders Panther Energy Trading LLC and its Principal Michael J. Coscia to Pay $2.8 Million and Bans Them from Trading for One Year, for Spoofing in Numerous Commodity Futures Contracts*, U.S. Commodities Futures Trading Commission (July 13, 2013), *available at* www.cftc.gov/PressRoom/PressReleases/pr6649-13.

[61] Peter J. Henning, *'Spoofing,' a New Crime With a Catchy Name*, New York Times DealBook (Oct. 6, 2014), *available at* http://dealbook.nytimes.com/2014/10/06/a-new-crime-with-a-catchy-name-spoofing.

Inc. ("CBOT"), NYMEX, and COMEX have also recently taken steps to specifically prohibit "spoofing" and "quote stuffing practices" on the exchanges.[62]

C. FINMA Found Similar Problems at UBS

215. A 2013 investigation by FINMA, the Swiss regulator, found that UBS's foreign exchange currency dealers had "repeatedly and over a longer period of time tried or accepted repeated attempts to manipulate foreign currency reference values by the aggressive execution of large volume orders in order to generate a profit for themselves, the bank or for third parties;" and entered "agreements with other banks in regards to a possible influencing of the foreign currency reference values," following which the traders "would congratulate each other [in chatrooms] if they as a whole or as individuals were successful in moving the reference value or the foreign currency exchange rate in the desired direction."[63]

216. Such practices were not restricted to UBS' currency traders, but instead "were at least partially applied [to precious metals] PM spot trading as well." This occurred through precious metals traders: "(i) sharing of order book information with third parties (including stop loss customers); (ii) sharing of large orders to be currently executed or pending with third parties (collusion among traders at various banks); (iii) sharing the names of bank customers with third parties; (iv) front running; and (v) triggering stop loss orders and digital options." As alleged above, Defendants engaged in similar practices in respect of the PM Fixing.

D. Other Relevant Findings

217. Defendants' conduct at issue in this case is part of a larger set of revelations

[62] *See* Letter from Christopher Bowen, CME Group, to Christopher J. Kirkpatrick, Commodity Futures Trading Commission (Aug. 28, 2014), *available at* www.cftc.gov/filings/orgrules/rule082814cmedcm001.pdf.

[63] Foreign Exchange Trading from the UBS AG: Inspection by the FINMA (Nov. 12, 2014), at 12 (translation from German), *available (in German) at* www.finma.ch/e/aktuell/pages/mm-ubs-devisenhandel-20141112.aspx.

emerging about banks in the context of these other financial benchmarks. The manipulation alleged is nearly ubiquitous, cutting across what were previously thought to be distinct markets and entities (regarded even as competitors). For instance, as outlined in part above, UBS AG ("UBS"), Citibank, N.A. ("Citibank"), JPMorgan Chance Bank, N.A. ("JPMorgan"), and Royal Bank of Scotland pls ("RBS") were each recently subject to multiple investigations resulting in substantial fines in connection with their conspiring to manipulate foreign exchange ("Forex") benchmarks.[64] Among the conduct these banks have admitted to engaging in was disclosure of confidential customer order information and trading positions, adjustment of trading positions to accommodate the interests of the collective group, trading to trigger customers' limit orders or customers' barrier options for the bank's benefit and to the detriment of those customers, and agreeing to enter into trading strategies to manipulate benchmark prices.

218. As noted by FINMA, Defendants' collusion connected to the London Gold Fixing occurred in ways similar and, at times, nearly identical to those revealed by recent regulatory investigations into manipulation of other benchmarks, including in the foreign exchange market. Among the banks targeted by such investigations is Defendant HSBC.

219. HSBC recently settled with the CFTC over its manipulation of Forex (also known as "FX") benchmarks. The CFTC found that HSBC and other banks used private chat rooms to communicate and plan their manipulation.[65] During these communications, HSBC traders

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[64] Defendant Barclays is reported to have avoided similar reports and fines only because it opted out of settlement talks "at the last minute." *See* Margot Patrick and Max Colchester, *Barclays Pulls Out of Forex Settlement Amid New York Complications*, The Wall Street Journal (Nov. 12, 2014), *available at* http://online.wsj.com/articles/barclays-pulls-out-of-forex-settlement-amid-new-york-complications-1415792606.

[65] U.S. Commodity Futures Trading Commission, *Order Instituting Proceedings Pursuant to Sections 6(c)(4)(A) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions in the matter of HSBC Bank plc* (Nov. 11, 2014), at 2, *available at* www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfhsbcorder111114.pdf.

disclosed confidential customer order information and trading positions, altered trading positions to accommodate the interests of the collective group, and agreed on trading strategies as part of an effort by the group to attempt to manipulate Forex benchmark rates. The manipulation occurred, according to the CFTC, because HSBC failed to adequately assess risks and lacked internal controls to detect and deter misconduct.

220. HSBC also recently resolved similar charges by the U.K. FCA. The FCA found that HSBC attempted to manipulate foreign exchange rates in collusion with traders at other firms for HSBC's benefit and to the detriment of clients and/or other market participants. HSBC also shared confidential client information with other firms and attempted to trigger clients' stop loss orders for its own benefit and to the detriment of those clients and/or other market participants.[66] Echoing the FCA findings regarding Barclays and the London Gold Fixing, the FCA found that HSBC did not adequately manage risk, in part by failing to discharge its responsibilities with regard to confidentiality, conflicts of interest, and trading conduct.[67]

221. Given the admissions of wrongdoing by Barclays, statements of the United States Senate, findings by FINMA about UBS' attempts to manipulate precious metals, the statements of former precious metals traders in response to developments, and the strikingly similar incentives and opportunities in the gold market as others shown to be manipulated, all coupled with the extensive empirical analysis presented above, Defendants' wrongdoing in the gold market is more than merely plausible – it is virtually undeniable.

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[66] U.K. Financial Conduct Authority, *Final Notice to HSBC Bank plc* (Nov. 11, 2014), at 3, *available at* www.fca.org.uk/your-fca/documents/final-notices/2014/hsbc-bank-plc.

[67] *Id*. The CFTC has also released multiple examples of trader misconduct in private chat rooms by which Forex-trading banks – including Defendant HSBC – were able to profit from manipulation of currency benchmarks. *See* Commodity Futures Trading Commission, *Examples of Misconduct in Private Chat Rooms* (Nov. 11, 2014), *available at* www.cftc.gov/ucm/groups/public/@newsroom/documents/file/hsbcmisconduct111114.pdf.

VII. DEFENDANTS' CONDUCT RESTRAINED TRADE, DECREASED COMPETITION, AND ARTIFICIALLY LOWERED PRICES, THEREBY INJURING PLAINTIFFS

A. Prices for Gold Investments – Including The Spot Market as Governed by the Fixing – are Inextricably Linked, and Form a Single Market

222. As described above, the prices of Gold Investments – including as set by the PM Fixing – are highly correlated. For example, as explained above, the PM Fixing and the price of COMEX gold futures have effectively moved in lockstep since 1975. *See* ¶ 87. Likewise, the prices for gold spot and futures prices, when average normalized prices are used, have effectively mirrored each other between January 2001 and December 2013. *See* ¶ 88. Equally, the prices of the SPDR Gold Shares (and Gold ETFs) and the PM Fixing price have moved in near perfect unison when tracked from 2004 to 2013, *see* ¶ 89, with gold futures (COMEX GC) returns and returns on SPDR Gold Shares also having correlated to an extremely high degree during the period from 2007 – 2012. *See* ¶ 92.

223. The interdependence of prices for Gold Investments is not surprising given that each investment is linked to the same underlying physical commodity. In the case of gold COMEX futures, for example, the price of gold futures is linked to the price of physical, or spot, gold simply because futures prices are an estimate of the future value delivery of physical, or spot gold. In the case of gold ETFs, for example, the correlation exists because ETFs are structured to reflect spot prices.[68] Academic work has extensively documented the impact of the PM Fixing on prices of market-leading gold derivative instruments, as well as the strong commonality among the impacts on these instruments.[69]

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[68] *See* SPDR Gold Trust Prospectus, dated April 26, 2012, at 2: "The investment objective of the Trust is for the Share to reflect the performance of the price of gold bullion."

[69] *See* Caminschi and Heaney, *Fixing a Leaky Fixing*, J. FUTURES MARKETS at 18, 19, 35 ("[T]rade volumes in GC [CME Group gold futures contracts] and GLD [State Street Global Advisors Gold ETF] exhibit a large, statistically significant spike immediately after the start of

224. The interdependence of prices for Gold Investments and as set by the PM Fixing is also not surprising given that the PM Fix was understood to set – and treated worldwide by participants in the Gold Investments market as setting – a *benchmark price* for gold, regardless of the form on instrument through which the gold-related investment was trading. *See* ¶¶ 70–71.

B. Defendants' Artificial Lowering of the Price of Gold, Including the PM Fix Price, Directly Impacted the Market for Gold Investments

225. Defendants' conduct constitutes a *per se* violation of the antitrust laws because of its clear and obvious risk of inflicting anticompetitive impact and economic injury. Defendants operated as a secretive cartel and engaged in a price-fixing scheme that inherently reduced the free and unfettered competition the Sherman Act was designed to preserve and promote. Defendants' scheme to fix the benchmark price at artificially suppressed levels directly and immediately impacted the market for Gold Investments (a market in which Defendants participate). To the extent each type of Gold Investment may be considered a distinct submarket, Defendants' scheme immediately impacted those submarkets as well.

226. Defendants hold themselves out as horizontal competitors (as buyers, sellers, and brokers) in the market for Gold Investments. As such, they should compete *with and against* each other when trading either their own proprietary books or the assets and investments of their clients. The fact that Defendants participated in the London Gold Fixing did not give them permission to suspect this competition. Indeed, the Fixing was intended to yield market outcomes that depended on Defendants operating as competitors. Instead of acting as competitors, however, Defendants agreed to restrain trade in order to pursue collective goals and

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the fixing. . . . GC and GLD both exhibit large, statistically significant spikes in price volatility immediately following the start of the fixing. . . . [N]ot only are the price movements of the publicly-traded instruments predictive of the fixing price direction, they are significantly more predictive for the fixings that result in large price changes. That is, not only are the trades quite accurate in predicting the fixing direction, the more money that is made by way of a larger price change, the more accurate the trade becomes.").

to manipulate the market by collusion and coordination, as described above. Defendants' collusive price fixing was inimical to competition and restrained trade in the affected market (and any applicable submarkets).

227. As explained supra, the PM Fixing was supposed to be – and was understood by market participants as being – a reliable benchmark price for gold, including the market for Gold Investments, because it reflected actual market supply and demand. This was the case for at least two reasons.

228. First, the chair for the PM Fixing was supposed to commence the Walrasian auction process used in the Fixing by announcing (and then soliciting supply or demand levels from Defendants in response to) a figure that was the then-prevailing US Dollar spot price for gold. That is, *the starting point* for each day's PM Fixing was held out to be the spot price of gold at 3:00 p.m. in London (10:00 a.m. in New York). The spot price for gold is the price for delivered physical gold, and thus – ultimately – the price upon which all gold-based or gold-derived investments are based.

229. Second, the auction that followed the chair's announcement of the prevailing spot price was supposed to be a *genuine* and *competitive* auction, based on *actual market supply and demand* for gold. Defendants were supposed to announce whether they were buyers or sellers at the chair's price based on net supply/demand for spot gold from their order books. This supply and demand was supposed to consist of orders from customers – market participants free to place orders with any Defendant if one Defendant's prices were not sufficiently competitive – and/or orders from Defendants themselves, where Defendants were engaging in proprietary trading, acting as direct market participants.

230. Trade was accordingly restrained and competition decreased in the market for Gold Investments by any manipulation of either: (1) the price at which the chair commenced the

PM Fixing on a given day, or (2) the levels of market supply and demand that moved the PM Fixing price to the level at which it was ultimately fixed. As shown above, however, Defendants repeatedly colluded to ensure there was coordinated manipulation and fixing of both the opening price and the quoted buy/sell levels.

231. Defendants colluded to manipulate the price at which the chair opened the Fixing on a given day by placing "spoof orders," engaging in "wash sales," as well as collusively sharing and acting on non-public information regarding client orders (including stop-loss orders), including shortly before the PM Fixing. They did this in order to manipulate the spot price for gold, and thus the "prevailing" price that the chair would announce at commencement of the Fixing. *See* ¶¶ 8, 16, Section IV.A.

232. Defendants also colluded to manipulate the actual levels of market supply and demand quoted by the Fixing members – and thus the direction and extent of any movement of the starting price during the Fixing – by the means described in the preceding paragraph as well as by falsely representing the net supply or demand on their order books, or by "netting off" or "building" certain orders before the Fixing commenced.

233. Additionally, Defendants – and co-conspirators who were not members of the Fixing – colluded to manipulate the market for Gold Investments in the ways described above at times of the day other than around the PM Fixing.

234. These schemes were undertaken for the purpose of manipulating the benchmark price that would be reached by that day's Fixing, or otherwise artificially to lower the price of Gold Investments. The resulting price movements had a significant impact on price for gold spot and for any Gold Investment connected to or affected by the spot price for gold, and thus by the PM Fixing.

235. Defendants' ability to influence the PM Fixing benchmark price, including by

way of manipulation of the price at which the PM Fixing would commence, is amply demonstrated by the structure of the Fixing and the empirical evidence discussed above. Defendants thus have considerable power over the market for Gold Investments, including those which expressly reference or in practice rely on the Fixing price.

236. Accordingly, to the extent that Defendants and their co-conspirators' collusive manipulation artificially lowered prices in the spot market for gold or as reached by the PM Fixing, it also artificially lowered prices in the broader market for Gold Investments, including because prices for each of the Gold Investments implicitly and expressly followed the PM Fixing price. The effects of Defendants' collusive manipulation of the above-described market were purposeful, intended to maximize their profits, and occurred at least on the days set out in Appendix A.

C. Plaintiffs, as Sellers in the Market for Gold Investments, Were Injured by Transacting at Lowered Prices Created by Defendants' Collusive Conduct

237. As defined in more detail below (*see* Section XI below), Plaintiffs were sellers in the market for Gold Investments, and were affected by movements in prices in the gold spot market, and by the price set by the PM Fixing.

238. Defendants and their co-conspirators' collusive manipulation artificially lowered prices in the market for Gold Investments. As sellers in that market, Plaintiffs thus received lower sales prices than they would have received in a competitive market free of Defendants' collusive and manipulative conduct.

239. As a direct result of Defendants and co-conspirators' conduct, Plaintiffs were injured in their business or property and suffered harm in respect of the sales they conducted where the relevant sales price was artificially lowered by collusive manipulation. Such sales and harm occurred at least on (but not limited to) the days set out in Appendix B.

240. In the ways and for the reasons set out at above, the artificially low prices caused by Defendants and co-conspirators' manipulative conduct in the market for Gold Investments persisted, and also caused harm to plaintiffs beyond the days set out in Appendix B.

VIII. EQUITABLE TOLLING OF THE STATUTE OF LIMITATIONS DUE TO DEFENDANTS' CONCEALMENT OF THE CONSPIRACY

241. Defendants and their co-conspirators concealed their wrongdoing in manipulating the London Gold Fixing. Thus, the statute of limitations relating to the claims for relief alleged herein was tolled, due both to Defendants' and their co-conspirators affirmative acts of concealment and the inherently self-concealing nature of their private, unregulated conduct.

242. Defendants' and their co-conspirators success in concealing their collusion was facilitated by their tremendous control over global financial markets and the gold markets in particular.

243. Neither Plaintiffs nor the Class knew of Defendants' and their co-conspirators unlawful and self-concealing manipulative acts and could not have discovered them by the exercise of reasonable due diligence, if at all, at least prior to public reports of government investigations concerning possible manipulation of the London Gold Fixing in 2013. Plaintiffs and the Class also lacked any basis for identifying the wrongdoers or calculating damages before that date. Indeed, Defendants' and their co-conspirators' conduct concerning the London Gold Fixing was so well hidden that Defendants and their co-conspirators kept global regulators unaware of such conduct for years until in or around 2013.

244. Following the reports of government investigations becoming public, Plaintiffs undertook investigation into possible manipulation of the London Gold Fixing, retained counsel, and retained economic consulting experts to undertake sophisticated economic investigation of the London Gold Fixing and whether it was subject to manipulation by Defendants and their co-

conspirators.

245. Reasonable due diligence could not have uncovered Defendants and their co-conspirators manipulative conspiracy because: (i) the London Gold Fixing was held out as being set by an impartial auction based on market factors; (ii) the London Gold Fixing is conducted in private; (iii) Defendants' and their co-conspirators trading positions and trading strategies are not public information; (iv) the bilateral, non-exchange traded nature of the transactions at issue; (v) the highly specialized and esoteric nature of the different aspects of the gold market make it extraordinarily difficult for an ordinary person to assess improprieties; and (vi) neither Defendants nor their co-conspirators told Plaintiffs or other Class Members that they were conspiring to fix, stabilize, maintain, and/or otherwise manipulate the London Gold Fixing.

246. Defendants and their co-conspirators also took active steps to conceal evidence of their misconduct from Plaintiffs, the Class, regulators, and the public including, *inter alia*: (i) holding out the London Gold Fixing as an impartial, arms-length process that reflected market factors; (ii) stating that gold prices reflected normal market forces;[70] (iii) maintaining the secrecy of the London Gold Fixing process; (iv) avoiding any discussion in public fora of the London Gold Fixing and/or manipulation of the London Gold Fixing; (v) refusing to comment on, or affirmatively denying allegations of, manipulation reported by the press in or after March 2013; (vi) initiating sham gold trades they never intended to execute in order to influence artificially the price of gold; (vii) secretly trading their own proprietary gold positions; and (viii) using non-public proprietary trading platforms directly to coordinate intended price movements.

247. In addition, Defendants and their co-conspirators also failed to have the proper internal controls in place to detect internal misconduct concerning the London Gold Fixing.

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[70] *See, e.g.*, The London Bullion Market Association, Forecast 2013 (Jan. 2, 2013), at 6 (Société Générale), 7 (Deutsche Bank), 8 (Barclays), 16 (HSBC), *available at* www.lbma.org.uk/assets/forecast2013.pdf.

Such internal failures made it all the more difficult for Plaintiffs, the Class, government regulators, and the public to become aware of Defendants' and their co-conspirators misconduct. Indeed, even following government investigations concerning other financial benchmark manipulation that came to light in 2012 and 2013, the Defendants did not examine their internal controls surrounding the London Gold Fix and chose instead to continue to conceal their misconduct.

248. For example, as noted by the U.K. Financial Conduct Authority, Defendant Barclays failed to have proper internal controls in place to adequately monitor traders' conduct at the Fixing. The U.K. Financial Conduct Authority specifically found that "Barclays' systems and reports [] did not formally record orders place by traders in the Gold Fixing until 5 February 2013" and that "Barclays' lack of systems and controls to record internal orders and flag trades that related specifically to the Gold Fixing left the firm unable to supervise traders' activities in the Gold Fixing adequately." *See* ¶¶ 195, 203–05.

249. Such failures also made it easier for Barclays employees to conceal their misconduct. For example, the U.K. Financial Conduct Authority found that a Director on the Precious Metals Desk at Barclays attempted to conceal his manipulative trading activity at the Fixing and provided an untruthful account of events to government regulators.[71] The U.K. Financial Conduct Authority noted that this conduct was all the more egregious because it occurred *the day after* Barclays was fined for rigging LIBOR interest rates.[72]

250. Such failures were also not limited to Defendant Barclays and are prevalent among the Defendants and their co-conspirators.

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[71] *See* U.K. Financial Conduct Authority, *Final Notice to Daniel James Plunkett* (May 23, 2014), at 2.7.

[72] *See* U.K. Financial Conduct Authority, *Final Notice to Barclays Bank plc* (May 23, 2014), at 2.11.

251. For example, the CFTC found that Defendant HSBC failed to have adequate internal controls in place on its foreign currency desk to detect the manipulation of foreign currency benchmark prices. *See* ¶ 219. BaFin noted similar internal control failures at Defendant Deutsche Bank concerning LIBOR.[73] The French financial regulator Autorité de Contrôle Prudentiel has also found "serious shortcomings" in internal controls at Defendant Société Générale in the past.[74] The Swiss financial regulator FINMA also found similar failures at UBS surrounding precious metals benchmarks. FINMA noted that although many in UBS were aware of manipulation and the fact that internal controls were deficient, UBS employees voluntarily chose not to take any action and instead helped to conceal the activity. *See* ¶ 215.

252. As a result of Defendants' and their co-conspirators' affirmative steps to conceal their improper conduct, their willful decision not to put in place proper controls to detect improper conduct, the self-concealing nature of the price-fixing conspiracy, and the resulting lack of public information about material aspects of the conspiracy, collusion, and trading based on nonpublic information, the statute of limitations was tolled for Plaintiffs' claims.

IX. CLASS ACTION ALLEGATIONS

253. Plaintiffs bring this action on behalf of themselves and as a class action under Rule 23(a) and (b)(3) of the Federal Rules of Civil Procedure, seeking relief on behalf of the following class (the "Class"):

> All persons or entities who during the period from January 1, 2004 through June 30, 2013 (the "Class Period"): (i) sold physical gold; (ii) sold gold futures contracts traded on COMEX; (iii) sold shares

[73] Daniel Schäfer, *German regulator to tell Deutsche Bank to improve controls*, Financial Times (Aug. 12, 2013), *available at* www.ft.com/intl/cms/s/0/4a036a28-0342-11e3-b871-00144feab7de.html#axzz3LiFYXfrP.

[74] Fabio Benedetti-Valentini, *SocGen Blames Single Trader After $608 Million Penalty*, Bloomberg (Dec. 4, 2013), *available at* www.bloomberg.com/news/2013-12-04/solcgen-blames-single-trader-after-607-million-penalty.html.

in Gold ETFs; (iv) sold gold call options traded on COMEX; (v) bought gold put options traded on COMEX; (vi) sold over-the-counter gold spot or forward contracts or gold call options; or (vii) bought over-the-counter gold put options.

Excluded from the Class are Defendants and their employees, affiliates, parents, subsidiaries, and co-conspirators, whether or not named in this Complaint, and the United States Government, and other governments.

254. Plaintiffs believe that there are many thousands of Class Members as described above, making the Class so numerous and geographically dispersed that joinder of all Class Members is impracticable.

255. There are questions of law and fact common to the Class that relate to the existence of the conspiracy alleged, and the type and common pattern of injury sustained as a result thereof, including, but not limited to:

a. Whether Defendants and their co-conspirators engaged in a combination or conspiracy to fix, raise, maintain, stabilize and/or otherwise manipulate the gold benchmark price in violation of the Sherman Act and/or Commodity Exchange Act;

b. The identity of the participants in the conspiracy;

c. The duration of the conspiracy;

d. The nature and character of the acts performed by Defendants and their co-conspirators in furtherance of the conspiracy;

e. Whether the conduct of Defendants and their co-conspirators, as alleged in this Complaint, caused injury to the business or property of Plaintiffs and the Class Members;

f. Whether Defendants and their co-conspirators fraudulently concealed the conspiracy's existence from Plaintiffs and the Class Members;

g. The appropriate injunctive and equitable relief for the Class; and

h. The appropriate measure of damages sustained by Plaintiffs and the Class Members.

256. Plaintiffs' claims are typical of the claims of the other Class Members. Plaintiffs

and the Class Members sustained damages arising out of Defendants' common course of conduct in violation of law as complained of herein. The injuries and damages of each Class Member were directly caused by Defendants' wrongful conduct in violation of the laws as alleged herein.

257. Plaintiffs will fairly and adequately protect the interests of the Class Members. Plaintiffs are adequate representatives of the Class and have no interests adverse to the interests of absent Class Members. Plaintiffs have retained counsel competent and experienced in class action litigation, including commodity futures manipulation and antitrust class action litigation.

258. The prosecution of separate actions by individual Class Members would create a risk of inconsistent or varying adjudications.

259. The questions of law and fact common to the Class Members predominate over any questions affecting only individual members, including legal and factual issues relating to liability and damages.

260. A class action is superior to other available methods for the fair and efficient adjudication of this controversy. Treatment as a class action will permit a large number of similarly situated persons to adjudicate their common claims in a single forum simultaneously, efficiently and without duplication of effort and expense that numerous, separate individual actions, or repetitive litigation, would entail. The Class is readily definable and is one for which records should exist in the files of Defendants and their co-conspirators, Class Members, or the public record. Class treatment will also permit the adjudication of relatively small claims by many Class Members who otherwise could not afford to litigate the claims alleged herein, including those for antitrust. This class action presents no difficulties of management that would preclude its maintenance as a class action.

CAUSES OF ACTION

CLAIM ONE

VIOLATION OF 15 U.S.C. § 1
AGREEMENT RESTRAINING TRADE

261. Plaintiffs hereby incorporate each preceding and succeeding paragraph as though fully set forth herein.

262. Defendants and their unnamed coconspirators entered into and engaged in a combination and conspiracy that was an unreasonable and unlawful restraint of trade in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1, *et seq.*

263. During the Class Period, Defendants entered into a series of agreements to reduce competition amongst themselves by fixing and/or manipulating gold prices before and during the Fixing, the PM Fix, and, as a result, the price of Gold Investments, including COMEX futures.

264. This conspiracy to manipulate gold market prices and the benchmark price caused injury to both Plaintiffs and the Class by depriving them of the benefit of accurate gold benchmark prices reflecting true market conditions, as well as accurate spot gold prices for some period during and following Defendants' unlawful conduct, and thus received, upon execution of their trades, less in value than they would have received absent Defendants' wrongful conduct.

265. The conspiracy is a *per se* violation of Section 1 of the Sherman Act. Alternatively, the conspiracy resulted in substantial anticompetitive effects in the gold market. There is no legitimate business justification for, or pro-competitive benefits from, Defendants' conduct.

266. As a direct and proximate result of Defendants' violation of Section 1 of the Sherman Act, Plaintiffs and the Class have suffered injury to their business and property throughout the Class Period.

267. Plaintiffs and the Class are entitled to treble damages for the violations of the Sherman Act alleged herein. Plaintiffs and the Class are also entitled to an injunction against Defendants preventing and restraining the violations alleged herein.

CLAIM TWO

VIOLATION OF 7 U.S.C. §§ 1 *et seq.*
MANIPULATION IN VIOLATION OF THE COMMODITY EXCHANGE ACT, INCLUDING CFTC RULE 180.2

268. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth herein.

269. By their intentional misconduct, the Defendants and their co-conspirators each violated Sections 6(c)(3) and 9(a)(2) of the Commodity Exchange Act (the "CEA"), 7 U.S.C. §§ 9(3), 13(a)(2), and CFTC Rule 180.2 adopted under the CEA ("Rule 180.2") and caused prices of exchange-traded gold futures and options and over-the-counter gold forwards and options to be artificial during the Class Period.

270. Defendants' and their co-conspirators' trading and other activities alleged herein constitute market power manipulation of the prices of exchange-traded gold futures and options and over-the-counter gold forwards and options in violation of Sections 9(a) and 22(a) of the CEA, 7 U.S.C. §§ 13(a) and 25(a), and Rule 180.2.

271. Defendants' and their co-conspirators' foregoing extensive manipulation deprived Plaintiffs and the Class of a lawfully operating market during the Class Period.

272. Plaintiffs and others who transacted in exchange-traded gold futures and options and over-the-counter gold forwards and options during the Class Period transacted at artificial and unlawful prices resulting from Defendants' and co-conspirators' manipulations in violation of the CEA, 7 U.S.C. § 1, *et seq.*, and Rule 180.2, and as a direct result thereof were injured and suffered damages. Plaintiffs each sustained and are entitled to actual damages for the violations

of the CEA alleged herein.

CLAIM THREE

VIOLATION OF 7 U.S.C. §§ 1 *et seq.*
EMPLOYMENT OF MANIPULATIVE OR DECEPTIVE DEVICE OR CONTRIVANCE IN VIOLATION OF THE COMMODITY EXCHANGE ACT, INCLUDING CFTC RULE 180.1

273. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth herein.

274. By their intentional misconduct, the Defendants and their co-conspirators each violated Sections 6(c)(1) and 9(a)(2) of the Commodity Exchange Act (the "CEA"), 7 U.S.C. §§ 9(1), 13(a)(2), and CFTC Rule 180.1 adopted under the CEA ("Rule 180.1") and caused prices of exchange-traded gold futures and options and over-the-counter gold forwards and options to be artificial during the Class Period.

275. Defendants' and their co-conspirators' trading and other activities alleged herein constitute market power manipulation of the prices of exchange-traded gold futures and options and over-the-counter gold forwards and options in violation of Sections 9(a) and 22(a) of the CEA, 7 U.S.C. §§ 13(a) and 25(a), and Rule 180.1.

276. In violation of CEA Section 6(c)(1), and CFTC Rule 180.1, Defendants and co-conspirators also caused to be delivered for transmission false or misleading or inaccurate reports of the London Gold Fixing, *i.e.*, false reports concerning market information or conditions that affected or tended to affect the price of gold, a commodity in interstate commerce. Defendants and co-conspirators did so either knowingly, intentionally, or acting in reckless disregard of the fact that such reports were false misleading or inaccurate.

277. Defendants' and their co-conspirators' foregoing extensive manipulation deprived Plaintiffs and the Class of a lawfully operating market during the Class Period.

278. Plaintiffs and others who transacted in exchange-traded gold futures and options and over-the-counter gold forwards and options during the Class Period transacted at artificial and unlawful prices resulting from Defendants' and co-conspirators' manipulations in violation of the CEA, 7 U.S.C. § 1, *et seq.*, and Rule 180.1, and as a direct result thereof were injured and suffered damages. Plaintiffs each sustained and are entitled to actual damages for the violations of the CEA alleged herein.

CLAIM FOUR

VIOLATION OF 7 U.S.C. §§ 1 *et seq.*
PRINCIPAL-AGENT LIABILITY IN VIOLATION OF THE COMMODITY EXCHANGE ACT

279. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth herein.

280. Each Defendants is liable under Section 2(a)(1)(B) of the CEA, 7 U.S.C. § 2(a)(1)(B), for the manipulative acts of their agents, representatives, and/or other persons acting for them in the scope of their employment.

281. Plaintiffs each sustained and are entitled to actual damages for the violations of the CEA alleged herein.

CLAIM FIVE

VIOLATION OF 7 U.S.C. §§ 1 *et seq.*
AIDING AND ABETTING LIABILITY IN VIOLATION OF THE COMMODITY EXCHANGE ACT

282. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth herein.

283. Defendants and their co-conspirators knowingly aided, abetted, counseled, induced and/or procured the violations of the CEA alleged herein. Defendants did so knowing of each other's, and their co-conspirators', manipulation of the London Gold Fixing, and willfully

intended to assist these manipulations, which resulted in gold futures and options pricing becoming artificial during the Class Period in violation of Sections 13 and 22(a)(1) of the CEA, 7 U.S.C. §§ 13c(a), 25(a)(1).

284. Plaintiffs each sustained and are entitled to actual damages for the violations of the CEA alleged herein.

CLAIM SIX

UNJUST ENRICHMENT

285. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth herein.

286. Because of the acts of Defendants and their co-conspirators as alleged herein, Defendants have been unjustly enriched at the expense of Plaintiffs and the Class.

287. Plaintiffs and the Class seek restoration of the monies of which they were unfairly and improperly deprived, as described herein, by way of transactions for the sale or purchase of Gold Investments entered into with Defendants or their co-conspirators.

PRAYER FOR RELIEF

Plaintiffs demands relief as follows:

A. That the Court certify this lawsuit as a class action under Rules 23(a), and (b)(3) of the Federal Rules of Civil Procedure, that Plaintiffs be designated as class representatives, and that Plaintiffs' counsel be appointed as Class counsel for the Class;

B. That the unlawful conduct alleged herein be adjudged and decreed to violate Section 1 of the Sherman Act;

C. That Defendants be permanently enjoined and restrained from continuing and maintaining the conspiracy alleged in the Complaint;

D. That the Court award Plaintiffs and the Class damages against Defendants for

their violations of federal antitrust laws, in an amount to be trebled in accordance with such laws, plus interest;

E. That the Court find that Defendants violated the CEA and award appropriate damages;

F. That the Court award Plaintiffs and the Classes their costs of suit, including reasonable attorneys' fees and expenses, as provided by law; and

G. That the Court direct such further relief it may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(a) of the Federal Rules of Civil Procedure, Plaintiffs demand a jury trial as to all issues triable by a jury.

DATED: New York, New York
December 15, 2014

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CERTIFICATE OF SERVICE

I hereby certify that on December 15, 2014, I caused the foregoing document and attachments to be served via electronic mail on all parties registered for CM/ECF in the above-captioned matters.

/s/ *Daniel L. Brockett*
Daniel L. Brockett